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Manual of Instructions for Medical Advisory Boards

Prescribed by the President under the authority vested in him by the terms of the Selective Service Law (Act of Congress approved May 18, 1917)

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WAR DEPARTMENT,

Washington, 14th day of February, 1918.

Under the authority vested in him by the Act of Congress, May 18, 1917, the President of the United States prescribes this Manual of Instructions for Medical Advisory Boards, prepared under the direction of the Surgeon General of the Army, and directs that they be published for the government of all concerned, and that they be strictly observed.

NEWTON D. BAKER,
Secretary of War.

MANUAL OF INSTRUCTIONS FOR MEDICAL ADVISORY BOARDS.

REGULATIONS FOR THE PHYSICAL EXAMINATION OF REGISTRANTS REFERRED TO THE MEDICAL ADVISORY BOARDS.

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I. PRELIMINARY STATEMENT.

Functions of Medical Advisory Boards.

Medical Advisory Boards have no power to determine finally whether a registrant shall be accepted or rejected for military service. This power is placed by the Selective Service Law in the Local and District Boards of Exemption. The functions of the Medical Advisory Boards are, as the name imports, to examine registrants referred to them by the Exemption Boards and State Adjutants General, and to return the result of their examinations, inserted at the proper places in Form 1010 P. M. G. O., "Report of Physical Examination" (section 282, Selective-Service Regulations, page 155).

Section 44, S. S. R., states the functions of Medical Advisory Boards as follows:

> There have been provided in the various counties, cities, and other localities throughout the United States, Medical Advisory Boards, who will examine registrants sent to them by Local Boards or State Adjutants General for examination, and will advise such Local Boards or State Adjutants General concerning the physical condition of such registrants. Upon the advice so obtained, Local Boards may proceed to a final determination concerning the physical qualifications of such registrants.

This MANUAL OF INSTRUCTIONS FOR MEDICAL ADVISORY BOARDS is not part of the Selective-Service Regulations, but consists of the enunciation of rules and standards which are to govern Medical Advisory Boards in making their examinations and arriving at their opinions concerning the physical and mental qualifications of registrants, and in conducting their business and transmitting their reports, advice, and recommendations.

Certain sections of the Selective-Service Regulations relating to and governing the action and procedure of Medical Advisory Boards, together with rules of organization and procedure, are printed as an appendix at the end of this Manual, for convenient reference. They must be carefully read and observed.

The Selective-Service Regulations contains, as an integral part thereof, namely Part VIII (sections 182 to 188, inclusive), regulations governing physical examination of registrants by the examining physicians of Local Boards. For convenience of the Medical Advisory Boards these regulations governing Local Board's physical examinations are reprinted, in appropriate places

throughout this Manual, in order that Medical Advisory Boards may be fully advised concerning the standards of acceptance and rejection by examining physicians of Local Boards and concerning the regulations requiring the reference of doubtful and remediable cases to the Medical Advisory Boards.

From the foregoing it is apparent that the injunctions herein contained to accept or reject registrants, or to place them in certain groups in accordance with their respective physical qualifications, is not to be taken as importing that the action of Medical Advisory Boards is final. But these Instructions are rules and standards to guide Medical Advisory Boards in arriving at their decisions and in formulating their reports of their examinations on Form 1010.

This MANUAL OF INSTRUCTIONS FOR MEDICAL ADVISORY BOARDS has been prepared by a board of qualified specialists, including military surgeons, appointed by the Surgeon General; and the rules and standards herein set forth relating to examinations by the examining physicians of Local Boards, as well as by the Medical Advisory Boards, are based upon the same rules and standards that are to be followed by the military examining surgeons at cantonments or recruiting stations. In this manner it is expected that no registrants found by the boards to be qualified for military service will be rejected upon their subsequent examination by the examining surgeons at the camps.

Distribution of Registrants into Four General Groups.

Section 128½ of the Selective-Service Regulations provides as follows:

The Regulations (Part VIII) governing physical examinations by Local Boards prescribe a standard of unconditional acceptance and a standard of unconditional rejection. All cases found, upon physical examination by a Local Board, falling between these two standards shall be referred by the Local Board to the Medical Advisory Board in the same manner as other cases that are required by these regulations so to be referred. Cases so referred as falling between these two standards, and cases referred to Medical Advisory Boards under other provisions of these regulations, shall be examined by the Medical Advisory

Boards, who, after examination in accordance with the Manual of Instructions for Medical Advisory Boards (Form 64, P. M. G. O.), shall:

A. Accept the registrant as physically qualified for general military service; or,

B. Accept the registrant as physically qualified for general military service when cured of ——— (naming a remediable defect for which acceptance is authorized in the Manual of Instructions for Medical Advisory Boards, Form 64, P. M. G. O.); or,

C. Accept the registrant as physically qualified for special or limited military service in a named occupation or capacity; or,

D. Reject the registrant;

and shall record their finding in the proper spaces provided on Form 1010.

Medical Advisory Boards shall find a registrant physically qualified for general military service (Rule A above) only when he falls within the standard of unconditional acceptance as prescribed in Sections 182 to 188, inclusive, as further explained and amplified by the Manual of Instructions for Medical Advisory Boards (Form 64, P. M. G. O.), including cases of slight remediable defects not included under foregoing Rule B.

Medical Advisory Boards shall find a registrant physically qualified for general military service WHEN CURED OF A REMEDIABLE DEFECT (Rule B above) only in those cases when such acceptance is specifically authorized in the Manual of Instructions for Medical Advisory Boards (Form 64, P. M. G. O.); namely, when a registrant is found to fall within the "deferred remediable group."

When a Medical Advisory Board determines that a registrant should be accepted for general military service WHEN CURED OF SUCH REMEDIABLE DEFECTS (Rule B above) the Medical Advisory Board shall insert in ink in the space provided on page 2 of Form 1010, under the general heading "PHYSICAL EXAMINATION BY MEDICAL ADVISORY BOARD," and following the words "Physically qualified for general military service," the words "when cured of ———,"

followed by the name or diagnosis of the remediable defect, which name or diagnosis is to be followed by a circle in black ink. Upon return to the Local Board of the record (Form 1010) in such a case, and if the finding of the Medical Advisory Board is confirmed by the Local Board, the registrant's place in the classification column shall not be changed, but the Local Board shall, WITH BLACK INK, inscribe a bold circle around the cross mark (X) or cipher (0) in such classification column; and such registrant shall be inducted into military service, after his order number is reached, and at such time as may be designated by the Surgeon General of the Army, and shall be sent to cantonment base hospitals, reconstruction camps, or civic general hospitals as may be determined by the Surgeon General.

Registrants shall be found by Medical Advisory Boards as "physically qualified for special or limited military service" (Rule C above) only in those cases described in the Manual of Instructions for Medical Advisory Boards (Form 64 P. M. G. O.), and in such cases the Medical Advisory Boards shall designate the occupation or class of service for which such persons are physically qualified in the space provided on page 2, under the general heading "PHYSICAL EXAMINATION BY MEDICAL ADVISORY BOARD" (Form 1010 P. M. G. O.), after the words "physically qualified for special or limited military service as" ———. If such finding is confirmed by the Local Board the same shall be indicated on the Classification List as provided by section 124.

Registrants shall be found by Medical Advisory Boards as physically deficient and not physically qualified for military service (Rule D above) only when they fall within the standards of unconditional rejections as prescribed in sections 182 to 188, inclusive, as further explained and amplified by the Manual of Instructions for Medical Advisory Boards (Form 64 P. M. G. O.).

When a Medical Advisory Board delays the examination of a registrant on account of temporary defect it must return to the proper Local Board form 1010 with a statement attached thereto

(but not written thereon), stating the reason for delay, and fixing a definite period of time within which the registrant shall be sent back to it. At the end of said period, or earlier, if it believe the temporary defect is removed, the Local Board shall send the registrant back to the Medical Advisory Board, unless the Local Board believes that the examination should be further delayed, in which event it shall report the facts upon which its belief is based to the Medical Advisory Board and request its instructions.

The foregoing regulation, quoted from the Selective-Service Regulations, clearly indicates the four groups into which Medical Advisory Boards shall place registranst as a result of the physical examinations in accordance with this Manual of Instructions.

Further Instructions and Explanation as to Groups.

In other words Group A shall contain registrants found to be qualified for general military service within the standards of unconditional acceptance, including registrants with slight remediable defects; for example, a registrant who, under examination of the nose, is found to have: "Benign growth of any kind, nasal polypi, hypertrophy of the mucous membrane, benign superficial ulcerations, deviation of the septum." And for a further example: "Registrants with single or multiple lesions of the skin of a nonmalignant character which, in the judgment of the Medical Advisory Board, are remediable by treatment." And for a further example: "Registrants with benign tumors of the neck."

Registrants with such slight remediable defects shall be held physically qualified for general military service, the defects to be remedied after the registrant enters the cantonment (if not remedied pending orders).

All registrants coming within the foregoing definition and as specifically indicated in the instructions in this Manual, are to be included in Group A and reported as physically qualified for general military service in the place indicated on Form 1010.

Group B shall contain registrants who are found to be physically qualified for general military service *when cured* of some remediable defect, which is of such a character that it must be remedied or cured before the registrant can be ordered to camp. This group is called

"the deferred remediable group." It includes registrants who have incapacitating but remediable defects. Such defects will be remedied, *when the registrant is called*, in such hospitals as may be designated by the Surgeon General. In this group "the deferred remediable group," will be placed registrants suffering, for example, "with large hernia," with trachoma, from drug addiction, "with large remediable ulcers," "with the lesion of the skin distinctly malignant, apparently curable," registrants suffering with conjunctivitis and other specially mentioned diseases of the eyes.

Registrants placed in this group will be reported as "physically qualified for general military service when cured of ————" (the name or diagnosis of the remediable defect), and shall be reported on Form 1010 in the manner provided in section 128½, S. S. R., above quoted.

Group C shall contain registrants who are found to be not within the standard of unconditional acceptance on account of defects which are not remediable, nor sufficiently incapacitating to bring them within the condition of unconditional rejection. This is the group of registrants who may be found to be qualified for special or limited military service. For example, registrants who are suffering "with ankylosis of the lower jaw, perforations of the hard palate, registrants who do not have the minimum dental requirements" for general military service nor for placing in Group B, but who are physically qualified in other respects, and this without regard to the condition or absence of all teeth, etc. Registrants in this group shall be reported on Form 1010, as provided in foregoing section 128½, S. S. R., for special or limited military service in the particular occupation or capacity which must be named in the report.

Group D shall contain all registrants coming within the standards of unconditional rejection and includes all cases not included in Groups A, B, and C. Such registrants must be reported on Form 1010 as "physically deficient and not physically qualified for military service by reason of ————" (the reason for the disqualification to be stated in the blank provided).

In arriving at their decisions concerning the physical qualifications of registrants, Medical Advisory Boards must be governed, as to the grouping of registrants, by the specific instructions contained in this Manual.

Headquarters. **Headquarters, Expenses, Correspondence.**

Medical Advisory Boards must conduct all their proceedings in strict accordance with these regulations and the Selective-Service Regulations, and at the headquarters of the Board.

No physical examination, nor any part thereof, shall be conducted elsewhere (and especially not at the private office of a member of the Board) except in case of absolute necessity and for the purpose of utilizing apparatus which is not available elsewhere.

Expenses. Applications for authority to incur clerical and all other expenses (including such expenses as payment for materials in X-ray work, etc.) must be made, before the expense is incurred, to the Governor. (See sections 43(d), 198, 204 and 208 S. S. R. printed in the appendix.)

Correspondence. All inquiries, requests for interpretations, reports, and communications of every character (except those with Local Boards) must be addressed to the Governor or State Adjutant General, either directly or through the Medical Aide to the Governor. When necessary such communications will be forwarded through proper channels to the Surgeon General. (See sec. 25, S. S. R., printed in the appendix.)

Regulation for Local Board. (Section 182 S. S. R.)

Form: See sec. 282. In view of the contemplation of a further investigation and classification of registrants physically qualified for special and limited military service who have *not* the physical qualifications for general military service, and in view of the decision to accept some registrants for general military service with remediable defects, who are otherwise physically and mentally qualified for military service, the following new regulations for the physical examination of registrants by the physician on the Local Board become necessary.

Acceptance, general service. Local Boards can accept registrants for general military service only when they come within the standards for unconditional acceptance with or without remediable defects.

Rejection, general service. Local Boards can reject registrants for general military service only when the registrant comes within the standards of unconditional rejection.

All other registrants must be referred by the Local Board to the Medical Advisory Board for further examination and classification. Other cases.

Physicians on the Local Board are not required to make a complete examination of every registrant. The moment the physician on the Local Board finds a mental or physical defect placing the registrant within the standards of unconditional rejection the physician on the Local Board shall indicate this on Form 1010, section 282, page 156, after "physically deficient and not physically qualified for military service by reason of"—in the space following write the disqualifying defect. Unconditional rejection. Physical examination.

In all other cases the Local Board shall make a complete examination of registrants; and when the physician on the Local Board finds a defect which does not come within the standards of unconditional rejection, but does take the registrant out of the class within the standards of unconditional acceptance, he shall proceed to make a complete examination and will then refer the registrant to the Medical Advisory Board, reporting the result of the complete examination, including a report of the defect or defects, on Form 1010. (Sec. 282, p. 156.)

Registrants can not be declared physically qualified for general military service (see Form 1010, section 282, p. 156) until the complete examination has been made by the physician on the Local Board, with the finding that the candidate comes in every instance within the standards of unconditional acceptance with or without remediable defect. Then it is so noted and recorded on Form 1010, section 282, page 156, and if there is a remediable defect, this is also recorded after "physically qualified for general military service." (C. S. S. R. No. 3, Jan. 28, 1918.) Acceptance general service only after complete examination.

For Medical Advisory Boards.

This Manual contains the new and more definite regulations for the physical examination of registrants for the guidance of the Medical Advisory Boards.

The object of these regulations is to insure greater efficiency in the Selective Service. *The members of Medical Advisory Boards should consider the regulations as a guide to their discretion. Therefore the regulations are not to be construed too arbitrarily. The object of the regulations is to procure men who are physically fit, or who can be made so,*

for the rigors of field service, and the determination of this question is left to the judgment and discretion of Local and District Boards as advised by local examining physicians and by the Medical Advisory Boards.

There should be cooperation between the LOCAL BOARDS and the ADVISORY BOARDS. Cooperation may be made practicable through consultations and conferences between the LOCAL BOARDS and ADVISORY BOARDS when this is possible. The majority of the Advisory Boards will have the opportunity to be in close touch with the Local Boards of their jurisdiction. In some large advisory districts the opportunity for frequent conference and consultation may be infrequent and difficult. However, through conferences between the Medical Aide to the Governor, the Chairman and the Secretary of the Local Boards, and of the Advisory Boards, ways and means for cooperation may be found with the object of securing greater efficiency in the physical examination of registrants.

A Medical Advisory Board which has a full personnel of qualified specialists will be able to make a thorough examination. The number of members is not limited, and additional members of Advisory Boards may be nominated at any time, through the Medical Aide, by the Governor for appointment by the President. (See sec. 29, S. S. R.)

The personnel of the Advisory Board should be kept at all times as full as efficiency demands. Members of the Advisory Boards who hold commissions in the Medical Reserve Corps, when assigned by the Surgeon General to active duty, automatically cease to be members of the Advisory Boards. Places on Advisory Boards thus made vacant may be filled as stated.

The standard of efficiency of the Advisory Board should result in the rejection of all registrants referred to the Advisory Board for examination who are physically and mentally defective within the standards of unconditional rejection. This is very important as a measure of economy and justice to the Government, the Army, and the registrant.

On the other hand, it is just as important that the Medical Advisory Board should recognize and accept the registrants who are physically and mentally fit for general military service who are found to come within

the standards of unconditional acceptance with or without remediable defect.

In those States and localities where it is impossible to organize an Advisory Board with a complete personnel of qualified specialists it is not expected that the Advisory Board will be able to carry out the complete directions for the physical examination of those registrants who require it. In this emergency the Medical Aide to the Governor, with the latter's authorization, should make provision, if possible, for the registrant to be examined by competent specialists who may not be members of Advisory Boards, or recommend that such registrants be accepted by the Local Board and sent to the cantonment for reexamination. The Advisory Board should examine registrants at the established headquarters of the Board, which by preference should be a general hospital. In certain emergencies the registrant may be sent elsewhere for special examination, such as taking a roentgenogram, withdrawing spinal fluid, eye and ear tests, etc.

The Advisory Board is *not* required to make a complete examination of every registrant. At that point in the course of the examination when it is found that the registrant is physically or mentally unfit within the standards of unconditional rejection, he shall be rejected.

The place, order, and method of the general examination by Advisory Boards should be the same as that advised for Local Boards. The procedure and methods of more exhaustive examination by Advisory Boards are included in this Manual.

After the Advisory Board has completed the examination of the registrant, the Chairman or a designated member of the Advisory Board shall certify the result in the proper space on Form 1010, and return the result in triplicate to the Local Board through the mail or by messenger.

It is the duty of the Advisory Board to advise the Local Board to classify all registrants examined by the Advisory Board as indicated in Form 1010.

Those registrants who upon complete examination are found to come within the standards of unconditional acceptance with or without remedial defect, as indicated in the regulations for Local Boards, Part VIII, sections

182 to 188 inclusive, shall be reported as physically and mentally qualified for general military service. Group A.

Those registrants who are found to come within the standards of unconditional acceptance for general military service, who have a remediable defect in the form of large hernia, trachoma, drug addiction, and other conditions described in this Manual, sections III to XXI, shall be accepted and designated by the Advisory Board by the diagnosis of the remediable defect, hernia, trachoma, drug addict, etc., followed by a circle in black ink.

This designated group of registrants, (Group B or "deferred remediable group") *when called*, will be remedied in cantonment base hospitals, reconstruction camps, or civic general hospitals as may be ordered by the Surgeon General. It is recognized that registrants who suffer from trachoma and also drug addicts must be segregated in special camps for treatment.

Those registrants found by the Advisory Boards physically and mentally unfit for general military service because they do not come within the standards of unconditional acceptance, *but who are found to be physically and mentally fit for special or limited military service*, shall be designated in Form 1010 by the diagnosis and occupation. This group (Group C) is clearly defined in this Manual, sections III to XXI.

Those registrants found by the Advisory Boards to come within the standards of *unconditional rejection* (Group D) shall be so designated in Form 1010, followed by the diagnosis.

II. PLACE, ORDER, AND METHOD OF EXAMINATION.

Regulations for Local Board. (Section 183, S. S. R.)

Method.

The physical examination should take place in a large, well-lighted room. Question the registrant first about his physical condition, observe his mental characteristics and speech.

Be on the lookout for malingering throughout the entire examination. Examine the scalp and face, nose, teeth, mouth, and fauces. Palpate the skull, then have the registrant strip of all his clothing, and make a general inspection of the skin over the entire body, of the conformation of the back, chest, and abdomen, of the region of the neck and buttocks, and of the upper and lower extremities. Inspect for the bulgings of hernia,

inspect the genitals, palpate the testicles, inspect the anus, tell the registrant to move all the joints of the extremities and to bend the neck and body for observations on movements of the spine.

Take the weight and height and chest measurements while the registrant is stripped of all his clothing. The chest measurements are taken on the level just above the nipple with the tape horizontal.

During examination of the chest and of the eye and ear the registrant may put on his underdrawers, trousers, shoes, and stockings.

Guard against the registrant becoming chilled. Physical examination.

The local physician can use his judgment as to the order of the physical examination. (C. S. S. R. No. 3, Jan. 28, 1918.)

These regulations may be followed by the Medical Advisory Board.

SPECIAL EXAMINATIONS AND STANDARDS FOR UNCONDITIONAL REJECTION, UNCONDITIONAL ACCEPTANCE, WITH OR WITHOUT REMEDIABLE DEFECTS, AND REFERENCE TO THE MEDICAL ADVISORY BOARDS.

Regulations for the Local Board. (Section 184, S. S. R.)

Remember that the Local Boards can accept or reject for general military service or refer the registrant to the Medical Advisory Board for further examination and classification. The Local Boards can not place the candidate in the class "physically qualified for special or limited military service," except upon and in accordance with the finding and recommendation of the Medical Advisory Board. Authority Local Boards.

III. MENTAL AND NERVOUS.

Regulations for Local Board. (Section 184(a), S. S. R.)

Reject insanity, epilepsy, idiots, imbeciles, and proven chronic alcoholism when the examination places the registrants within the standards of unconditional rejection as defined below. Rejection

Insanity.—All registrants who are committed or who have been committed to a licensed institution for insane or licensed private institution, who bring proof from verified records of institution or State Boards. Rejection.

Epilepsy.—The registrant will be declared an epileptic when verified histories establish the disease as of long duration and of the type of grand mal. Rejection.

Rejection. *Idiot.*—A registrant so deeply defective in mind from birth or from early age that he is unable to guard himself against common physical danger.

Rejection. *Imbecile.*—A registrant so deeply defective in mind from birth or from early age as to be incapable of earning a livelihood, but able to guard himself against common physical danger.

Rejection. *Chronic alcoholism.*—The registrant on examination must show suffused eyes, prominent superficial blood-vessels of nose and cheek, flabby, bloated face, red or pale purplish discoloration of mucous membrane of pharynx, and soft palate; muscular tremor in the protruded tongue and extended fingers, tremulous handwriting, emotionalism, prevarication, suspicion, auditory and visual hallucinations, persecutory ideas.

Frequent intoxication not of itself sufficient for rejection. The history or evidence that the registrant has been frequently and grossly intoxicated is not of itself sufficient for a diagnosis of chronic alcoholism and rejection.

Physical examination. Accept all registrants with apparent normal understanding and whose speech can be understood and who have no definite signs of organic disease of the brain, spinal cord, and peripheral nerves.

Refer all other registrants to the Medical Advisory Board.

Regulation for Medical Advisory Boards.

Reject all registrants as physically deficient and not physically qualified for military service by reason of—(give diagnosis) when the verified history or examination indicates the presence of or previous history of mental disease, disabling psychoneuroses, or organic diseases of the brain, spinal cord and peripheral nerves. No case of nervous or mental disease should be accepted for limited or special service. Reject all of this class [*except drug addicts*], who are not believed to be capable of performing general military service.

INSANITY.

Reject. A registrant shall be rejected when there is a verified history of a mental disease that required hospital treatment or observation even when at the examination by the Medical Advisory Board the registrant is apparently mentally normal. The circumstances should, however, be inquired into with great care.

The following are the most important clinical forms of insanity:

Paresis (*general paralysis*).—The diagnosis of paresis may be made when at the examination of the registrant a majority of the following signs and symptoms are demonstrated: Argyll-Robertson pupil or pupils, facial tremor, speech defect in test phrases, and in the slurring and distortion of words in conversation, writing defects consisting of omissions and the distortion of words. Apathetic or depressed or euphoric mood; these registrants may show memory loss, discrepancies in relating facts of life; the knee jerks may be plus, minus, or normal. Doubtful cases to be verified by Wasserman test of blood and examination of cerebrospinal fluid. If means of withdrawal of the cerebro-spinal fluid are not readily available, the registrant shall be accepted when there are no objective findings. **Reject.**

Dementia precox.—Look for indifference, apathy, withdrawal from environment, ideas of reference and persecution, feelings of the mind being tampered with, of thoughts being controlled by hypnotic, spiritualistic, or other mysterious agencies, hallucinations of hearing, bodily hallucinations, frequently of electrical or sexual character; meaningless smiles; in general, inappropriate emotional reaction and a lack of connectedness in conversation. There may be sudden emotional or motor outbursts. Get history of family life and of school, vocational, and personal career. **Reject.**

Manic-depressive insanity.—Look for mild depression with or without feeling or inadequacy or mild manic states with exhilaration, talkativeness, and overactivity. **Reject.**

PSYCHONEUROSES.—Registrants who have been actually and continuously incapacitated for a period of six months prior to May 18, 1917, from symptoms of hysteria, neurasthenia, psychasthenia, constitutional psychopathic state, etc., should be rejected. **Reject.**

Others, although presenting hysterical stigmata or even hysterical paralysis, should be accepted. **Accept.**

EPILEPSY.—The registrant will be considered an epileptic when a history verified by physicians, scars of tongue, face, and head, and possibly characteristic voice, establish the disease as of long duration and of the type of *grand mal.*

TREMORS, CHOREAS, AND TICS.

Tremors do not disqualify by themselves. Chronic essential choreas should disqualify. Tics, or spasms of

groups of muscles, should be considered in relation to the disability they occasion. Decision in these disorders in the discretion of the medical advisory board.

ORGANIC DISEASES OF THE BRAIN, SPINAL CORD, AND PERIPHERAL NERVES.

Reject. Registrants shall be rejected when the examination reveals definite signs and evidences of organic nervous disease—except that registrants in whom the history suggests an organic disease of the nervous system, and who may have certain after effects, shall be accepted as physically qualified for military service, provided (a) the disease is no longer operative and is not likely to recur, and (b) the effect left by the disease will not prevent a satisfactory fulfillment of general military duties. Examples: Paralysis of a few unimportant muscles following poliomyelitis, slight unilateral hypertonicity as a result of infantile hemiplegia in a man now robust, and various traumatic conditions. A history of hemiplegia occurring after infancy should always be a cause of rejection, even if no symptoms remain.

When the medical advisory board is in any doubt as to the diagnosis of paresis or tabes or cerebro-spinal syphilis the usual test of the blood and the cerebro-spinal fluid may be made. When the spinal fluid is Wassermann positive, and there is an increase of the cellular count and globulin content the registrant shall be rejected, because all cases of proven syphilis of the central nervous system rejects the registrant from all military service. If means of withdrawal of cerebro-spinal fluid are not readily available, the registrants should be accepted.

The following organic nervous diseases are often overlooked in the early stages:

Tabes (or locomotor ataxia).—The diagnosis of this disease may be made when, at the examination of the registrant, several of the following signs and symptoms are present: Argyll-Robertson pupil or pupils; absent knee jerk; Romberg symptom, ataxia of hands or legs (especially with closed eyes), hypotonia, anesthetic areas of skin; the history is usually that of slow progression, of failing sexual power, and pain in the legs and back, often described as rheumatism.

Cerebro-spinal syphilis.—The prominent diagnostic signs and symptoms are headache, pains in spine, pain referred

to distant regions through the involved cerebral and spinal nerves, varying deep and superficial reflexes, pupillary changes, ptosis and ocular palsies, facial weakness; mental state normal, dull, or apathetic. Look for comparative motor weakness of one side. A blood or spinal fluid Wasserman test may be necessary to make a definite diagnosis.

Multiple sclerosis.—The diagnosis of this disease rests upon the following signs and symptoms: Intention tremor, nystagmus, absent abdominal reflexes, increased tendon reflexes, and scanning speech; in cases of this kind the history obtained is not characteristic, but sometimes there may be a history of urinary disturbances.

Muscular atrophies and dystrophies.—Progressive muscular atrophies and dystrophies shall be considered organic diseases of the nervous system and disqualify. The signs and symptoms are: Atrophies of the small muscles of the hand and in the muscles of the shoulder, with fibrillary twitchings.

The history rarely furnishes reliable data, although reference may be made to awkwardness. There is no history of pain.

DRUG ADDICTION.

Accept.

Registrants with history or symptoms of drug addiction, if otherwise mentally and physically fit for military service, shall be accepted for general military service in the deferred remediable group (Group B) and be so indicated by the Medical Advisory Board.

CHRONIC ALCOHOLISM.

The registrant who shows the majority of the symptoms mentioned in reference to chronic alcoholism in regulations for the Local Board shall be rejected.

IV. SKIN.

Regulations for the Local Board. (Section 184(b), S. S. R.)

Rejection.

Reject registrants who have long-existing skin diseases which are so severe or so disfiguring as to be permanently incapacitating, or so disgusting or so disfiguring as to render the sufferers from them unsuitable for common social intercourse, or long-existing ulcers so severe or so extensive as to be permanently incapacitating.

Acceptance. Refer remediable ulcers to the Medical Advisory Board.

Accept registrants who have skin diseases which run an acute or temporary course, or are trivial in character, or do not interfere with the general health, or are not incapacitating. Among the common skin conditions coming in this category are: Acne, Anomalies of Pigmentation, Scars, Condylomata, Diseases produced by pus infection, Eczemas which have not been of long duration, all forms of Naevi not producing great disfigurement or deformity, all forms of Pediculosis, Scabies, Psoriasis, all forms of Ringworm, Warts, Callosities.

Refer all other cases of skin diseases to the Medical Advisory Board.

Diseases of temporary character to be treated. Registrants with infectious, syphilitic, and parasitic diseases of the skin of temporary character, or with other acute skin diseases, should be advised to accept treatment immediately, pending receipt of orders to report for duty.

Acceptance. *Accept* all registrants with syphilitic lesions of the skin.

Regulations for the Medical Advisory Board.

Reject. Registrants suffering with the following diseases of the skin shall be rejected as physically deficient and not physically qualified for military service by reason of—

Actinomycosis.
Dermatitis herpetiformis of long duration.
Epidermolysis bullosa.
Forms of Universal Dermatitis of long duration.
Glanders.
Idiopathic Multiple Hemorrhagic Sarcoma of Skin.
Mycosis fungoides.
Pemphigus chronicus of long duration.
Pemphigus foliaceous.
Pemphigus vegetans.

Accept. When the Medical Advisory Board is unable to make the correct diagnosis of one of the above diseases of the skin they may accept the registrant unless the skin lesion comes within the standard of unconditional rejection as defined in the Regulations to the Local Board. If not use their own judgment.

Registrants with single or multiple lesions of the skin of a nonmalignant character which, in the judgment of the Medical Advisory Board, are remediable by treatment shall be accepted for general military service.

Registrants with large remediable ulcers shall be accepted for general military service in the deferred remediable group. (Group B.) Accept.

Registrants with a lesion of the skin distinctly malignant, apparently curable, shall be accepted for general military service and placed in the deferred remediable group. (Group B.) Accept.

Registrants who bring authentic proof that they have been operated upon for a malignant tumor of the skin, and who at the examination show no evidence of recurrence, shall be accepted for general military service when in the opinion of the Medical Advisory Board there is no great likelihood of recurrence. Accept.

Registrants with a definite cancer of the lower lip or with a history verified by data that they have had removed from the lower lip by operation or otherwise a cancer of the lower lip shall be accepted for general military service only when the glands of the neck have also been removed and the microscopic section (verified by two pathologists) show no evidence of metastasis, otherwise the registrant shall be rejected from all military service.

Registrants with the signs and symptoms of, or the history of, a thrombo phlebitis of the upper and lower extremity, associated with a disease of the skin, shall be accepted or rejected according to the regulations given in Section XII.

It is important to repeat here to the Medical Advisory Board that registrants with syphilitic diseases of the skin shall be accepted for general military service unless the deformity due to ulceration and destruction of tissue places the registrant within the standard of unqualified rejection as given in the Regulations for the Local Board.

V. HEAD.

Regulations for the Local Board. (Section 184 (c) S. S. R.)

Accept registrants with depression in the skull or with any abnormalities of the bones of the skull unless they come within the standards of unconditional rejection noted under (*a*) *Mental and nervous.* Acceptance.

Refer all doubtful cases to the Medical Advisory Board.

Regulations for the Medical Advisory Board.

Accept. Registrants who have had a decompression operation in the region of the skull beneath the temporal or occipital muscles and who at examination show no bulging or marked pulsation may be accepted for general military service, providing they come within the mental requirements and providing the condition for which this operation was done has ceased to exist.

Reject. Registrants with a skull defect in an area of the skull other than those mentioned in the previous paragraph and larger than a 25-cent piece shall be rejected for general military service irrespective of bulging, pulsation, or the absence of mental symptoms. If the skull defect

Accept. is smaller than a 25-cent piece and there is no bulging or pulsation they may be accepted for general military service, providing they come within the mental requirements and provided the condition which caused this

Accept. defect has ceased to exist.

Registrants with abnormalities in size and shape of the skull or other irregularity in the bones of the skull shall be accepted for general military service, if otherwise they come within the standards of unconditional acceptance.

VI. SPINE.

Acceptance.

Regulations for the Local Board. (Section 184 (d) S. S. R.

Physical examination. Accept all registrants with a normal spine or with slight curvatures which do not interfere with function and weight-bearing power.

Rejection. Reject all registrants with signs and symptoms of undoubted extensive disease of the vetebræ which totally incapacitate. The wearing of a plaster jacket does not of itself reject.

Refer all other registrants and doubtful cases to the Medical Advisory Board.

Regulations for Medical Advisory Board.

Registrants presenting themselves to the Medical Advisory Board wearing plaster jackets must submit to the removal of this jacket in order to allow a complete examination.

This jacket should not be removed until there is provision for its reapplication.

PROVEN TUBERCULOSIS OF ANY PORTION OF THE VERTEBRAL COLUMN REJECTS.

Reject.

Registrants with definite signs of abscess or sinus and definite signs of fixation of the vertebral column shall be rejected on these signs only.

Registrants with kyphosis, referred pain, and no sign of abscess and sinus shall be subjected to X-ray plate before a diagnosis of a destructive disease is definitely made.

Nontuberculous diseases of the vertebral column which have produced limitation of motion in any portion of the spinal column shall reject the registrant for military service.

The degree of disability taken in reference to the registrant's present ability to work shall decide whether the registrant shall be accepted for limited service or rejected from all military service.

The decision in this group shall rest upon the examination including local and referred pain, muscle spasm, fixation of the vertebrae, and the reading of the X-ray plate.

FRACTURES OF THE VERTEBRAE.

Registrants with fractures of the coccyx shall be accepted for general military service.

Fractures of the sacrum and pelvic bone, when the diagnosis is confirmed by an X-ray plate, shall reject the registrant from both general and limited military service.

FRACTURES OF CERVICAL, DORSAL, AND LUMBAR VERTEBRAE.

Registrants with a history of a fracture of the spine, even with slight kyphosis, without marked symptoms and who, on examination, show no loss of function or weight-bearing power shall be accepted for general military service.

All other cases of fracture of the vertebrae in which the diagnosis is confirmed by the X ray shall be rejected for all military service. Reject.

SCOLIOSIS (LATERAL CURVATURE OF THE SPINE).

If this lateral deviation from normal mid line is 2 inches or less, the registrant shall be accepted for general military service. Accept.

If the lateral deviation from normal mid line is more than 2 inches and less then 3 inches, the registrant shall
Accept. be accepted for limited military service.

If the lateral deviation from normal mid line is more
Reject. than 3 inches, the registrant shall be rejected from all military service.

SACRO-ILIAC AND LUMBO-SACRAL JOINTS.

Registrants who claim to have suffered from symptoms of or to have been treated for affections of these joints and who, at examination, show no objective signs or
Accept. symptoms shall be accepted for general military service.

Registrants who, on examination, show objective signs and symptoms of affections of these joints shall be kept under observation for a reasonable length of time (three months).

If at the expiration of this time the examination re-
Aecept. veals no objective symptoms or signs, they shall be accepted for general military service.

If there are any objective signs or symptoms, the regis-
Reject trant shall be rejected for general military service or accepted for limited military service, according to the degree of disability taken in reference to the registrant's present ability to work.

The diagnosis of affections of the sacro-iliac and lumbo-sacral joints shall rest upon the demonstration of referred pain to the lower extremities, of muscle spasm, of postural deformities, and limited motion of the spine and lower extremities, confirmed by the radiograph combined with the interpretation thereof.

A sinus or abscess in the region between the coccyx and anus shall not be interpreted as a sinus in relation to disease of the vertebræ. When X ray shows no disease of bone, these abscesses and sinuses may be due to the embryonic remains of the pilo-nidal sinus. Registrants
Accept. with such conditions shall be accepted for general military service (Group A).

Recent contusions or sprains of the spinal column shall be looked upon as temporary defects. After a reasonable time the registrant shall be reexamined.

SCAPULA.

Registrants presenting prominent scapulæ when due
Accept. to other cause than paralysis shall be accepted for general military service.

Registrants presenting prominent scapulæ due to paralysis shall be accepted for special or limited military service. Accept, group 6.

VII. EARS. TESTS FOR HEARING AND MALINGERING.

Regulations for the Local Board. (Section 184 (e) S. S. R.)

Reject when it can be absolutely proven that the registrant is totally deaf in *both* ears. Rejection.

Accept when the hearing in both ears is above the standard of 10/20. Acceptance.

Refer to the Medical Advisory Board when the hearing is below the standard of 10/20 in one or both ears, or there is *complete deafness in one ear.*

To determine hearing, the hearing of the examiner should be normal. Test of hearing.

Place the registrant facing away from the assistant, who is twenty feet distant, and direct him to repeat promptly the words spoken by the assistant. If the registrant can not hear the words at twenty feet, the assistant should approach foot by foot, using the same voice, until the words are repeated correctly. Examine each ear separately, closing the other ear by pressing the tragus firmly against the meatus; the examiner faces in the same direction as the registrant and closes one of his own ears in the same way as a control. The assistant speaks in a low conversational voice (not a whisper) just plainly audible to the examiner, and should use numerals, names of places, or other words or sentences until the condition of the applicant's hearing is evident. The acuity of hearing is expressed in a fraction the numerator of which is the distance in feet at which the words are heard by the registrant and the denominator the distance in feet at which the words are heard by the normal ear; thus 20/20 records normal hearing, 10/20 imperfect hearing, etc. If any doubt as to the correctness of the answer is given, the registrant should be blindfolded and a watch should be used, care being taken that the individual does not know the distance from the ear at which it is being held. The watch used should be one whose ticking strength has been tested by trial on a normal ear.

Accept all registrants whose hearing is above the standard of 10/20 in both ears and who have no chronic discharge from the middle ear. Acceptance.

Physical examination. Refer to the Medical Advisory Board all registrants with chronic discharge from the middle ear and all doubtful cases.

Regulations for the Medical Advisory Board.

Before making any decision in regard to conditions of the external ear and external auditory canal the test for the acuity of hearing must be made.

Registrants can not be accepted for general military service unless the hearing in *both* ears is 10/20 or above. This is the regulation for the Local Board and there must be no deviation from it. Before making this test clean the ear of dirt and wax so that the membrana tympani is clearly visible.

Accept. Accept registrants with the loss of one or both external ears or with any deformity of one or both ears or with any lesion of the skin of one or both ears whose hearing is within the standard of unconditional acceptance.

Accept. Accept registrants with any lesion of the external auditory canal except a definite malignant tumor when the hearing in both ears is within the standard of acceptance.

INFECTIONS OF THE MIDDLE EAR.

Registrants with signs and symptoms of a recent middle ear infection with or without perforation should be held as temporary defects and given a reasonable time to allow the lesion to be treated or healed before they are reexamined.

Reject. Registrants with perforations of the membrana tympani and a chronic discharge from the middle ear when this is clearly determined by otoscopic inspection shall be rejected for all military service.

Accept. Registrants in whom the otoscopic examination detects a perforation of the membrana tympani but detects no discharge shall be accepted for general military service.

THE MEDICAL ADVISORY BOARD IS URGED IN CASES OF THIS KIND TO BE CERTAIN THAT THERE IS NO DISCHARGE FROM THE MIDDLE EAR BEFORE ACCEPTING THE REGISTRANT FOR GENERAL MILITARY SERVICE. IN CASES OF DOUBT THE REGISTRANT CAN BE GRANTED A REASONABLE DELAY BEFORE COMPLETING THE EXAMINATION. SEE SECTION 187, S. S. R., TEMPORARY DEFECTS. Registrants whose hearing in one or both ears is less than 10/20 but more than 5/20 shall be accepted for

special and limited military service providing the otoscopic examination reveals no perforation of the membrana tympani with discharge from the middle ear.

Reject registrants whose hearing in one or both ears is less than 5/20 from any military service.

TESTS FOR MALINGERING IN HEARING.

Cases of this character have been chiefly magnifications of slight imperfections on one side, together with complaint of past troubles. Exaggeration of defects in hearing extends to declarations of total deafness on one side. The following tests are recommended:

1. In testing malingering the suspect should be placed in the center of the room free from all obstructions. His eyes should be securely and completely blindfolded.

2. An accurate notation of the deaf ear should be made and a critical examination of the auditory canal and membrana tympani. Where possible the patulency of the eustachian tubes should be determined.

3. An accurate testing out of the normal ear should first be established. Care should be exercised not to allow the suspect to hear figures or other signs as to result of examination.

4. In making these examinations, the observer should have a skilled assistant, and all communications between them should be in a low, whispered voice.

5. The assistant should stand at the back of the patient and should at the direction of the examiner obstruct the ears of the suspect as directed by pressing the tragus firmly into the auditory meatus.

6. If the suspect gives markedly conflicting statements when the normal ear is tightly plugged as to the distance at which he hears the voice or accumeter, it is fair to assume he is a malingerer.

7. The simplest and most available test for malingering is an ordinary binaural stethescope. One ear piece, the one to be applied to the normal ear, is packed tightly with a wad of absorbent cotton and the ear pieces are placed in the suspect's ears. The examiner speaks in a soft tone or counts into the bell-shaped chest portion of the stethescope, and the suspect is told to repeat what he hears. The tubes are removed from the ears, and the assistant is told to stop the normal ear. The same words or numerals are again repeated. The suspect will now claim failure to hear the words or numerals which he

had previously heard through the tube with the ear stated to be deaf.

8. Erhard's test is another simple method for malingerers which requires no special apparatus. If the external auditory canal of a normal ear is tightly packed with absorbent cotton, it will still conduct sound waves to a limited degree, a loud ticking watch even under these circumstances being heard about one or two meters. The suspect has his ear which is stated to be deaf stopped and then the test is made with the hearing of the normal ear, the suspect being told to count the click of the watch. The suspect's normal hearing ear is then stopped and the testing is made with the supposed deaf ear. Under this test, if he claims failure to hear the watch under 1 meter, you may be certain he is malingering.

9. The Chiman-Moos test is made with the C2 tuning fork. The vibrating tuning fork is held at equal distances from each ear. The suspect will claim that he hears it better in the normal ear. The vibrating tuning fork is then placed on the vertex of the skull. The suspect hearing it equally well in both ears will at first hesitate, and then state he hears it better in the normal ear. In diseases of the conducting apparatus, as is well known, he should hear it better in the diseased ear. If, now the external meatus of the normal ear is tightly closed and the vibrating tuning fork is placed upon the vertex of the skull, the individual with the diseased ear will state he hears it better in the normal closed ear; or, it may be impossible for him to decide in which ear he perceives the tone better. The suspect, with the normal ear tightly obstructed, will state that he does not perceive the sound of the fork when thus placed on the vertex of skull.

VIII. EYES. TESTS FOR VISION AND MALINGERING.

Regulations for the Local Board. (Section 184 (f) S. S. R.)

Rejection. *Reject* all registrants with the absence of one eye and when there is no doubt they are totally blind in both eyes.

Acceptance. *Accept* all registrants with vision 20/100 in one eye and 20/40 in the other without glasses or 20/100 in each eye without glasses if correctable with glasses to 20/40 in either eye. When the physician on the Local Board is not supplied with test glasses and the registrant has not glasses refer to the Medical Advisory Board.

Accept all registrants who come within or exceed the above visual requirements though they may have the following slight defects:

Slight adhesions of the lids to the eyeball.

Small pterygium.

Slight eversion of the lids.

Ptosis, when not interfering with vision.

Strabismus, if vision up to standard.

Iridectomy, or other operation is in itself not a cause for rejection if condition for which it was performed is relieved.

Color-blindness is not a cause for rejection.

Refer to the Medical Advisory Board all other cases.

Test of vision.

Vision.—To determine the acuity of vision, place the person under examination with back to window at a distance of 20 feet from the test types. **Examine each eye separately, without glasses,** covering the other eye with a card (not with the hand). The applicant is directed to read the test types from the top of the chart down as far as he can see, and his acuity of vision recorded for each eye, with the distance of 20 feet as the numerator of a fraction and the size of the type of the lowest line he can read correctly as the denominator. If he reads the 20-feet type correctly, his vision is normal and recorded 20/20; if he does not read below the 30-feet type, the vision is imperfect and recorded 20/30; if he reads the 15-feet type, the vision is unusually acute and recorded 20/15, etc.

Regulations for Medical Advisory Board.

All registrants referred to the Medical Advisory Board with eye defects must be examined if possible by a thoroughly qualified ophthalmologist selected by the board.

The lids of every registrant must be everted for the purpose of determining the presence or absence of Trachoma.

Examine condition of pupils, their size, shape, and motor reaction to light and to accommodation. Abnormalities should be considered with reference to disease of the central nervous system as well as of the eyes.

Especial attention should be paid to all those whose vision is below the required standard. When no cause for the defective sight can be determined by objective methods, including an ophthalmoscopic examination, they should be tested for malingering.

Accept. **1. Accept for general military service.**

Visual requirements: Vision 20/100 in one eye and 20/40 in the other, without glasses, or 20/100 in each eye without glasses, if correctable with glasses to 20/40 in either eye.

Accept. **2. Accept for special or limited military service.**

Visual requirements: Vision 20/200 in one eye and 20/40 in the other (either right or left) without glasses, or, 20/200 in each eye without glasses if correctable with glasses to 20/40 in either eye.

Accept. **Slight defects, acceptable as fit for general military service.**

Slight nystagmus.
Slight conjunctivitis.

REGISTRANTS WITH CHRONIC CONJUNCTIVITIS IN DISTRICT WHERE TRACHOMA IS COMMON SHOULD BE MOST CAREFULLY STUDIED. IF THE DIAGNOSIS OF TRACHOMA CAN NOT BE EXCLUDED, THE REGISTRANT SHALL BE ACCEPTED FOR GENERAL MILITARY SERVICE IN THE DEFERRED REMEDIAL GROUP (Group B).

Accept. **Registrants with trachoma otherwise physically and mentally fit, with vision up to the standard for general military service shall be accepted for general military service in the deferred remediable group.** (Group B.)

Accept. Registrants suffering with the following remediable defects otherwise physically and mentally fit, and whose vision is within the standards of acceptance shall be accepted for general military service in the deferred remediable group (Group B):

Inversion of the eyelids.
Marked eversion of the eyelids
Ptosis, interfering with vision.
Trichiasis.
Epiphora.
Chronic blepharitis.
Pterygium (extensive).
Chronic dacryocystitis.
Blepharospasm.
Superficial corneal ulcer.
Acute inflammatory diseases of globe.

Unfit for military service. *The following are causes for unconditional rejection:*

All registrants whose vision is *below* 20/200 in each eye, without glasses. Reject.

All registrants whose vision, without glasses, is 20/200 and not correctable, with glasses, to 20/40 in either eye.

Disfiguring cicatrices.

Lagophthalmos (inability to close the lids).

Pronounced exophthalmos (Pathologic).

Chronic keratitis.

Chronic recurrent inflammatory diseases of the globe.

Deep ulcers of the cornea.

Opacities of the lens, or its capsule, sufficient to reduce the vision below the standard, and progressive cataract of any degree.

Any organic disease of the retina, choroid, or optic nerve.

Detachment of the retina.

Marked nystagmus.

Loss or disorganization of either eye.

Glaucoma.

All eye signs associated with toxic goiter.

Malignant tumors of the lids or globe. If operation has been performed for malignant growth and proof furnished, it is cause for rejection.

Diplopia, if associated with paralysis of the *extrinsic ocular muscles.*

VISUAL TESTS FOR THE DETECTION OF MALINGERERS.

Malingerers may feign inability to open their eyes, total loss of vision in one or both eyes, or impaired vision in one or both eyes. Occasionally an inflammation in the eyes will be produced by putting sand or other irritating substance under the lids.

Malingerers who wish to evade military service by feigning impairment of vision may be divided into two classes as follows:

A. Those who claim total loss of vision in one eye

B. Those who claim partial loss of vision in one or both eyes.

Either group may have a normal acuity of vision or may exaggerate a defect actually present.

In testing for malingering the medical examiner should bear in mind that detection is more likely to result when

the man is allowed to believe that his case is regarded from the first to be genuine and that his story is not discredited. There is something indefinable in the bearing of the malingerer which experience alone can detect. He may be self-assertive and overconfident; he may be hesitating or evasive. Careful observation should be made of his conduct and every movement noted. The nature of the man's answer should be taken into account and considered in the light of the kind of reply that is given when a genuine refraction case is being dealt with.

The following equipment is necessary:

1. Trial frame; blank; spherical lenses, +16, +3, +0.25, −3, −2, −1, −0.25.
2. Two prisms, one 6°, one 10°.
3. Ophthalmoscope (electric battery in handle).
4. Condensing lens.
5. Loupe.
6. Red and green letters on glass; (*a*) letters varying in size; (*b*) spectacle frame containing red and green glasses.
7. Special test cards, one a duplicate, with letters reversed to use with a mirror.
8. Special illiterate test cards.
9. Mirror, large enough to reflect test card.
10. One stereoscope with special cards.
11. Retinoscope (electric with battery in handle).
12. Ruler, about $1\frac{1}{4}$ inches wide.

METHODS OF EXAMINATION.

Class A. Total loss of vision in one eye.

(*a*) A 6° prism base downward is placed before the admittedly sound eye, while the man looks at a distant light or candle. If he sees two candles, binocular vision is proved. The examiner may vary the test by placing the prism before the "blind" eye, either base up or base down.

(*b*) A prism of 10° with base outward is placed before the "blind" eye. If there is any sight in this eye, double vision will be produced and the eye will be seen to move inward to correct it and fuse the two images.

(*c*) The alleged "blind" eye is covered. A prism of 10° with the apex up is placed before the seeing eye in such a position that its edge lies horizontally across the center of the pupil. This produces monocular diplopia.

The prism is then moved upward so as to be completely in front of the good eye and at the same time the "blind" eye uncovered. If diplopia is produced or admitted, there is sight in the "blind" eye.

(*d*) Test with colored glasses and letters: This consists in directing the individual to read a row of red and green letters through a red and green glass. The red letters will be invisible to the eye that has the green glass, and vice versa, but if all the letters are correctly read irrespective of their color, there must be sight in the "blind" eye. The proper illumination back of the chart must be observed.

(*e*) Test with trial glasses: A high plus glass is placed before the good eye and a low plus or minus before the "blind" eye. If the distant type is read, the vision in the "blind" eye is good.

(*f*) The stereoscopic test: This may be made with ordinary stereoscope, the printed matter so arranged that certain portions of it are not present before one of the eyes.

(*g*) The bar test: Interpose a ruler about $1\frac{1}{4}$ inches wide vertically midway between the two eyes at about 4 to 5 inches distance, direct the man to read from a printed page with lines at least 4 inches long. If able to read the lines, binocular vision exists.

(*h*) The action of the pupil must be carefully tested, there usually being no movement to light stimulation when the eye is blind. If the examiner is not satisfied, the following examination should be made:

Oblique examination.—A careful examination of the cornea should be made with the aid of a condensing lens and a loupe.

Ophthalmoscopic examination.—A searching examination with the ophthalmoscope should be made together with an estimation of the refractive error. The pupil should be dilated if necessary.

Class B. Partial loss of vision in one or botn eyes.

The most common manitesfation of malingering takes the form of a statement that one eye is imperfect. Men pleading this disability may be divided into two classes:

(*a*) Those who pretend to have a visual defect.

(*b*) Those who are aware they have a visual defect and exaggerate its effect.

No hard and fast tests can be prescribed for the detection of these cases. Much depends on the alertness and ingenuity of the medical examiner.

The tests with prisms are not applicable here, for there is not pretended blindness in one eye, but simply an alleged diminution of visual acuity.

METHODS OF EXAMINATION.

(*a*) If a room 30 or 40 feet long can be obtained for testing vision, place the registrant suspected of malingering at 30 to 35 feet from the test chart. Direct him to read the letters and note the result. He should then be brought up to 20 feet from the card and retested. If he reads the same line he is malingering.

(*b*) Mirror tests with special test cards. (See equipment No. 7.)

Test cards are used which are identical, one having the letters reversed. The registrant is directed to read the letters on the chart across the room, and then in a mirror beside it, which reflects reverse letters that are placed over his head. The letters seen in the mirror are located double the distance of the direct letters from the man being examined. The malingerer is apt to read in the mirror the line which he read on the first card, showing that his vision is twice as good as he pretends.

In order to obviate the use of test letters in the mirror test, various common objects approximating the size of the 20/40 and 20/30 letters may be used by asking the registrant to differentiate between a dime and penny, a cigarette and pencil, a pen and pencil, the number of spots on playing cards, or between the different aces, held on either side of his head and reflected in the mirror at 20 feet distance.

Trial frame test: Place a trial frame upon the man's face and put before the sound eye a high convex lens (+16D), and before the "blind" eye a plane or weak lens (0.25) which will not interfere with vision. If letters placed at distance of 20 feet are read, the fraud is at once exposed.

(*c*) Oblique examination with condensing lens and loupe to determine corneal or lenticular opacities.

(*d*) Ophthalmoscopic examination: It is probable that the malingerer will resist the ophthalmoscopic examination by frequent winking or rolling of the eyes. In this

event it is best to caution the man that a report of his vision must be made, and then to postpone further examination until after the next few registrants have been examined.

(*e*) Estimate the refractive error with the use of the ophthalmoscope. If no error of marked degree exists and the media and fundi are normal, the relation between the alleged vision and the refractive condition furnished an important clue. If the error is about +4.00 or −2.00 the visual acuity could be about 20/100, but when the defect can not be accounted for objectively, and the vision is brought from 20/100 to 20/50 or 20/30 by means of a low plus or minus glass, the man is malingering.

(*f*) Retinoscopy: Look for corneal and lenticular opacities and estimate refractor errors.

OCCUPATION.

The man's occupation in civil life may have been such that it could not have been followed without more vision than he claims.

In the absence of ocular defects, continuous and persistent blepharospasm, the use of colored glasses, eye shades, or eye bandages should be regarded with suspicion.

DIPLOPIA.

Cases of malingering are occasionally met with in which the men complain that they see double. These must be investigated with the application of the ordinary tests as if they were genuine, with every precaution taken to guard against a serious nervous lesion being overlooked.

IX. MOUTH, NOSE, FAUCES, PHARYNX, LARYNX, TRACHEA, AND ESOPHAGUS.

Regulations for the Local Board. (Section 184 (g) S. S. R.)

Reject all irremediable deformities and diseases which interfere with mastication of ordinary food, and interfere with speech so the registrant can not be understood. Reject.

Reject registrants who have a permanent gastrostomy or who are wearing a permanent tracheotomy tube. Reject.

Accept all registrants who have not complete obstruction to nasal breathing.

Accept.

Accept all registrants with nasal polypi, deviation of septum, enlarged tonsils and adenoids if obstruction to nasal breathing is not complete, and all remediable benign tumors.

Refer all other cases and all doubtful cases to the Medical Advisory Board.

Regulations for Medical Advisory Board.

The regulation to the local board just given in regard to the mouth, nose, fauces, pharynx, larynx, trachea, and esophagus, and the regulation in regard to the diseases of the skin (see section IV) clearly describe ulcerating and deforming conditions which, if present to a certain degree, shall disqualify.

TUBERCULOSIS.

Tuberculosis of the mouth, nose, fauces, pharynx, and larynx is rarely present without definite signs of tuberculosis of the lungs. Therefore, when the registrant has no objective sign of tuberculosis of the lungs, the diagnosis of tuberculosis of the mucous membrane of the cavities under consideration should not be made without the confirmation of the microscope either from a section of a piece removed, or the demonstration of the tubercle bacilli in material obtained from the surface of the diseased area.

In some instances of chronic laryngitis, with marked ulceration, the diagnosis of tuberculosis can be made without the aid of a laboratory, but the sputa should be examined for tubercle baccilli in cases of this kind and a section need not be taken.

MALIGNANT DISEASE.

In some cases of cancer of the mucous membrane of the areas under consideration, the diagnosis can be made by inspection. Registrant with such diseases shall be rejected.

In some cases of carcinoma of the antrum and sarcoma in the region of the mouth and jaws, the diagnosis can be made by inspection with the aid of the X-ray.

Deferred examination.

When the diagnosis of malignant disease can not be made by these ordinary methods, the examination of the registrant shall be temporarily deferred, section 187, S. S. R., and final examination and judgment deferred, giving the registrant a reasonable time to submit to the

appropriate treatment which is best for his relief, and at which treatment a correct and final diagnosis will be made.

The excision of small pieces of tissue for miscroscopic study, simply to make a diagnosis and to determine whether a registrant has malignant disease or not, must not be done unless it can be done without any danger whatever to the registrant, and with his consent.

Malignant diseases in these areas in ages under 31 are relatively infrequent.

Registrants who bring authentic data of operations in these areas for malignant disease shall be rejected unless there is a period of at least three years and examination shows no evidence of recurrence. Reject.

These cases should be carefully studied because many benign tumors have been diagnosed malignant. Dentigerous cyst, adamantine epithelioma, and giant cell sarcoma should not be classed as malignant.

ŒSOPHAGUS.

When registrants complain of inability to swallow, the diagnosis of a stricture of the œsophagus as the cause of this complaint must be confirmed by the introduction of a tube, by an X-ray picture after the swallowing of a bismuth mixture, and when possible by the employment of the œsophagoscope. Evidence of organic stricture of the œsophagus shall reject. Reject. Accept. When there is no evidence of organic stricture of the œsophagus and all other examinations are negative as to an objective cause, the registrant shall be accepted.

Before there can be any conclusion as to the acceptance of the registrant for general military service it should be determined that he has the required number of teeth, vision, and hearing, within the standard of unconditional acceptance.

NOSE.

Benign growth of any kind, nasal polypi, hypertrophy of the mucous membrane, benign superficial ulcerations, deviation of the septum. Accept.

ADENOIDS AND ENLARGED OR INFECTED TONSILS, HARE LIP, RANULA, AND BENIGN TUMOR ON MOUTH.

Nasal obstruction or discharge from the nose of these registrant shall not be considered a cause for rejection. Accept.

Before accepting any of the above remediable defects of registrant with obstruction to breathing or discharge from the anterior or posterior nares, an examination should be made for involvement of the sinuses with a purulent secretion (sinusitis). This examination shall consist of not only the usual inspection of the nose and throat, but the transillumination of the sinuses and two or more X-ray plates of them. The demonstration of chronic sinusitis places the registrant in the deferred remediable group; the demonstration of acute sinusitis causes the registrant examination to be temporary, (sec. 187). Registrants shall be given a reasonable time for recovery and treatment and then reexamined. When the evidence of involvement of the sinuses has disappeared, the registrant shall be accepted as physically qualified for general military service; when still present he shall be placed in deferred remediable group (Group B).

LARYNX.

Hoarseness and alteration of the voice should indicate an inspection of the larynx with larynxgoscope; acute and chronic laryngitis do not disqualify. Syphilitic laryngitis only disqualifies when the ulceration is of such a degree that the registrant has permanently lost power of talking so that he is understood. Paralysis of one vocal cord due to operation does not disqualify.

Accept. Aphonia, after an examination with negative result, should not disqualify, as it is usually hysterical or malingering.

The registrant who presents benign tumors of the larynx shall be placed in the deferred remedial group (Group B).

Physically qualified for special or limited military service.

Registrants whose defects are not remediable, and within the standard of unconditional acceptance, and not of sufficient degree to come within the conditions of unconditional rejection, shall be placed in the group for special or limited military service. (Group C.)

Defects which will place the registrant in this group (Group C) are ankylosis of the lower jaw, perforations of the hard palate, deformities interfering to a modified degree with mastication and speech.

X. NECK.

Regulations for the Local Board. (Sec. 184 (h) S. S. R.)

Reject fully developed exophthalmic goiter when there is present thyroid enlargement, pulse rate above 120 and exophthalmos. Reject.

Accept registrants with normal necks, moderate enlargement of the thyroid with no toxic symptoms. Accept with a few palpable lymph glands with or without healed scars and no sinuses. Accept.

Refer all other and doubtful cases to the Medical Advisory Board.

Regulations for the Medical Advisory Board.

EXOPHTHALMIC GOITER.

Registrants with fully developed exophthalmic goiter shall be rejected for any military service. The diagnosis rests more upon the toxic symptoms than upon the enlargement of the thyroid. These toxic symptoms are rapid pulse (tachycardia), pulsation of the vessels of the neck, high blood pressure, lymphocytosis, and certain eye signs, most prominent of which is exophthalmos of both eyes and tremor of the fingers. Reject.

Registrants who claim to have been treated or operated upon for exophthalmic goiter and who still show toxic symptoms should be rejected. If, however, the registrant shows absolutely no evidence of toxic symptoms with or without the scar of an operation upon the thyroid he should be accepted for general military service, unless he can bring verified proofs of preexisting exophthalmic goitre from the physician or surgeon who treated him then he should be rejected. Reject.

SIMPLE GOITER AND BENIGN THYROID TUMOR—NONTOXIC TYPE.

Registrants with symmetrical enlargement of the thyroid (simple goiter) and asymmetrical enlargement of lobes or isthmus (benign thyroid tumors) should be accepted for general military service if after careful examination they show no evidence of toxic symptoms. Accept.

When the enlargement of the thyroid is sufficiently great to prevent the wearing of the soldier's uniform, accept for general military service deferred remediable group (Group B) and diagnosis large goiter.

TOXIC TYPE.

Registrants whose enlargement of the thyroid corresponds to the previous group just described who on examination show one or more of the toxic signs should be accepted for general military service deferred remediable group (Group B) and diagnosis toxic goiter.

Registrants who give a history of an operation for enlargement of the thyroid or any benign tumor of the thyroid and show a healed scar and who have on examination no evidence of toxic symptoms shall be accepted for general military service. When, however, there is still present toxic symptoms, especially tachycardia, high blood pressure, and tremor, they should be rejected.

MYXOEDEMA.

Reject. Registrants with definite signs of myxoedema, whether associated with goiter or not, should be rejected. The diagnosis should rest upon slow mental processes, loss of hair, and the accumulation of fat, especially above the belt. This condition is very rare in this country, even after operations for the thyroid gland. When there is any doubt as to the diagnosis of myxoedema, the registrant should be accepted for general military service.

TUBERCULOUS GLANDS OF THE NECK.

This condition of the lymph glands of the neck is not of itself a cause for rejection.

Registrants with healed scars in the neck with a history of suppurating glands shall be accepted for general military service even if there are still some small glands to be palpated.

Registrants who give a history of removal of tuberculous glands of the neck and who show on examination a
Accept. healed scar shall be accepted even if there are a few small glands to be palpated.

Registrants with small palpable glands of the neck otherwise physically fit for general military service, shall be accepted.

Registrants with a single sinus in the neck with a history of suppuration as the cause of the sinus otherwise
Accept. physically fit shall be accepted for general military service.

Reject. Registrants with multiple sinuses of the neck of long duration should be rejected.

Great enlargement of the lymph glands of the neck should be thoroughly investigated; there should first be an examination of the blood; when this is negative for leukaemia, one of the enlarged glands may be removed under local anesthesia for microscopic study.

The diagnosis of leukaemia, Hodgkins Disease, or Lympho-sarcoma rejects the registrant from any military service. If the removed gland shows tuberculosis, or the registrant should refuse this minor operation he shall be accepted for general military service, deferred remediable group (Group B), diagnosis large tuberculous glands of neck or large glands of neck. Reject.

In all cases of enlarged glands of the neck with or without sinus or abscess there should be careful investigation of the nose, pharnyx, tonsils, and teeth, and the relationship between remediable defects found there and the lesions of the neck carefully considered.

BENIGN TUMORS OF THE NECK.

Outside of thyroid tumors and enlarged lymph glands the most common benign tumors in the region of the neck are atheromatous or other forms of cyst. Accept.

Registrants with benign tumors of the neck, or who give a history of the removal of a benign tumor of the neck shall be accepted for general military service. Accept.

Registrants with tumors in the region of the parotid or submaxillary glands (the so-called mixed tumors of the parotid) shall be accepted for general military service. Accept.

Registrants who give a history of the removal of the so-called mixed tumor of the parotid gland shall be accepted for general military service even if the operation has resulted in facial paralysis.

MALIGNANT TUMORS OF THE NECK.

There should be no difficulty in diagnosing a malignant tumor of the thyroid gland, however, when a registrant claims to have been operated upon for a malignant tumor of the thyroid gland and there are no signs of recurrence the Medical Advisory Board must thoroughly investigate the records of this operation. Not infrequently enlarged thyroid due to chronic thyroiditis or adenoma has been diagnosed malignant by the surgeon at the operation or by the pathologist from the microscopic section. Accept.

Cancer of the neck arising from the residue of a branchial cleft is rarely observed in men under 31 years of age.

This tumor has the same situation as that of the benign atheromatous cyst or an enlarged lymph gland behind the strenol cleido mastoid and below the parotid gland. The differential diagnosis in the early stage can not be made. Registrants therefore with a tumor in this area should be accepted for general military service, deferred remediable group (Group B), and diagnosed doubtful tumor of neck.

CONTRACTION OF THE MUSCLES OF THE NECK—TORTICOLLIS OR WRY NECK.

Accept. Registrants with nonspastic contraction of the muscles of the neck shall be accepted for general military service when the resultant deformity is not so disfiguring that it is unsightly or not of such a great degree that it will interfere with the wearing of a soldier's uniform or the duties of a soldier.

When the contractions are of a degree rendering the registrant unfit for general military service but in the judgment of the Medical Advisory Board remediable by operation, the registrant shall be accepted for general military service, deferred remediaable group (Group B), with diagnosis torticollis.

When the defect is not remediable by operation the registrant shall be accepted for limited military service or rejected according to the judgment of the Medical Advisory Board.

Reject. A spastic form of spasmodic contraction of the muscles of the neck shall reject the registrant from all military service.

XI. LUNGS.

Regulations for Local Boards. (Section 184 (i), S. S. R.)

Test of lungs. The examination of the lungs by the physician on the Local Board should in all instances include the following procedures:

Each registrant should be required to exhale his breath, cough, and immediately breath in. The chest should be auscultated during this process. All men who show moist sounds during cough or during respiration should be referred to the Medical Advisory Board.

All registrants should be referred to the Medical Advisory Board in whom at this examination there is well-marked dullness on percussion, increased transmission of the voice, harsh respiration, and prolonged expiration

even though there be no râles present. Men distinctly under weight or with sunken and deformed chests should be referred to the Medical Advisory Board, even if the examinations above noted are negative.

Accept registrants when the examinations noted above are distinctly negative, and the physician of the Local Board is of the opinion that there is no evidence of disease of the pleura, lungs, and mediastinum. Accept.

Refer all other cases to the Medical Advisory Board. Reject only in established cases.

Reject no registrants for diseases of the lungs, pleura, mediastinum, and chest wall except men with tuberculosis or other diseases of lungs, pleura, and mediastinum who are confined to their beds when verified histories establish unmistakably the existence and long duration of diseases.

REGULATIONS FOR MEDICAL ADVISORY BOARD—EXAMINATION FOR TUBERCULOSIS OF THE LUNGS.

The duties of the examiner are:

1. To exclude cases of manifest tuberculosis from the Army.

2. To hold to service men who allege tuberculosis as a ground for exemption or discharge on the basis of insufficient or incorrectly interpreted signs and symptoms.

Men who desire to serve their country may conceal, from patriotic motives, symptoms of tuberculosis which they know or suspect to exist. Some tuberculous patients will seek enlistment with a view to obtaining treatment and a pension. Some soldiers who have volunteered may repent their action and allege symptoms of tuberculosis with a view to securing discharge. Some conscripts may be expected to claim the existence of tuberculosis as a ground for exemption, and may fortify their claims by certificates of physicians and by radiographs. There will probably be many cases in which pulmonary tuberculosis will have been diagnosticated on the ground of subjective symptoms and of physical signs which are normal or indicate unimportant and healed lesions of some kind.

It is necessary therefore that conclusions of the examiner shall be based only on physical signs, sputum examinations, and radiographs. Statements of the subject as to symptoms will not be accepted as proof of the existence of tuberculosis unless supported by objective evidence.

It is the duty of examiners to protect the interests of the Government by preventing men from entering the service who have manifest tuberculosis. It is equally their duty to prevent the escape from service on the ground of tuberculosis of men who present slight or doubtful deviations from the normal. It is therefore necessary to insist that recommendations for discharge for tuberculosis of otherwise apparently healthy and vigorous men shall be based only upon the presence of definite and plainly marked signs of pulmonary lesions.

The following signs will *not* be regarded as evidence of pulmonary disease in the absence of other signs in the same portion of the lungs:

1. Slightly harsh breathing, slightly prolonged expiration over the right apex above the clavicle anteriorly and to the third dorsal vertebra posteriorly. The same signs at the extreme apex left side.

2. Same signs second interspace right anteriorly near sternum (proximity of right main bronchus).

3. Increased vocal resonance, slightly harsh breathing immediately below center of left clavicle.

4. Fine crepitations over sternum heard when stethoscope touches the edge of that bone.

5. Clicks heard during strong respiration or after cough in the vicinity of the sternocostal articulations.

6. The so-called atelectatic râles heard at the apex during the first inspiration which follows a deeper breath than usual or a cough.

7. Sounds resembling râles at base of lung (marginal sounds), especially marked in right axilla, limited to inspiration.

8. Similar sounds heard at apex of heart on cough (lingula).

9. Slightly prolonged expiration at left base posteriorly.

10. Very slight harshness of respiratory sounds with prolonged expiration in the lower paravertebral regions of both lungs posteriorly, most marked at about angle of scapula, disappearing a short distance above that point, equal on both sides, or slightly more marked at the angle on one side, more frequently the left.

The Apices.—Incipient tuberculosis of the apex is often erroneously diagnosticated:

1. On account of misinterpretation of normal sings.

2. Because the importance of minor differences between the two sides is exaggerated.

3. Because signs of a healed lesion are considered to indicate an incipient lesion.

For No. 1, see No. 1, page 42.

With regard to No. 2, it is not too much to say that, given a sufficiently minute examination, there would be few men who would fail to show some signs which might be interpreted as having pathological significance.

No. 3. The truly incipient tuberculosis of the apex generally escapes detection when in an active state. When healed it constitutes the abortive tuberculosis of Bard. Induration of the apex has been described by Krönig as a nontuberculous affection. The important question here is whether the signs present indicate a healed or active process. They are harshness of respiratory sounds, prolongation of expiration, increased conduction of voice, and more or less dullness on percussion. These signs are caused by induration of pulmonary tissue. Induration caused by acute inflammation is relatively rare in tuberculosis. It is not characteristic of a recent but of an advanced process, when present to an extent which permits detection by clinical methods. When it does occur, the subject is usually febrile and evidently ill. In cases of ambulant subjects in apparently good health the presumption is that the above signs indicate an old not an incipient lesion. The abortive tuberculosis of Bard, and Krönig's apical induration, whether or not it is due to an obsolete tuberculosis, are not causes for rejection in the absence of tuberculous disease at a lower level in the upper lobe. Narrowing of Krönig's isthmus is extremely common. It is not a sign of recent disease but of contraction of the lung from old disease. In consideration of the frequent asymmetry of the bony structures about the apices slight differences in the width of the isthmus on the two sides are unimportant. A distinct contraction of one side points to the existence of a tuberculous focus of the upper lobe; whether or not this focus is of clinical importance must be determined from the signs in the individual case. Contraction of the isthmus *per se* is not a cause for rejection. The attention of examiners is particularly invited to the necessity of exercising great conservatism in their interpretation of physical signs over the apices. Interpretation of such signs as indicating active tuberculosis would in many cases do the Government great injustice, leading to the exclusion of men who are fit for service. The only trust-

worthy sign of activity of apical tuberculosis is the presence of persistent moist râles.

DIAGNOSIS OF TUBERCULOUS LESIONS IN GENERAL.

The acute lesion.—If small this lesion is manifested by râles with or without changes in breath sounds, percussion note, and voice transmission. The more acute the lesion the greater the probability that its presence will be indicated only by râles. If of large extent the process is distinctly a broncho-pneumonia, generally caseous, characterized at first by the usual signs of pneumonia, crepitant, and subcrepitant râles; when caseated by absence of râles, except coarse and distant râles from the larger bronchi, also by impairment of expansibility of the lung, and more or less dullness or tympanitic resonance; when breaking down by cavity signs and the presence of loud moist râles of varying size. Large acute lesions are rarely found in candidates for enlistment, and the small acute lesion is also comparatively rare.

The arrested chronic lesion.—It is by no means rarely the case that a tuberculous lesion will run its course and become arrested without the knowledge of the subject, who may state in perfectly good faith that he has never had tuberculosis. The arrest of a lesion is indicated by the absence of râles. Such a lesion is characterized by harshness of breath sounds and prolongation of expiration, by increased vocal fremitus and resonance, and by more or less pronounced dullness on percussion.

The active, chronic, localized lesion.—Activity is denoted by the presence of râles, together with the other signs described under the arrested lesion. Râles do not necessarily show that the lesion is extending nor that the activity is of much clinical importance, but in military practice the presence of râles accompanied by breath changes and other signs should be an indication for rejection. The more active and recent the chronic lesion the less marked the breath changes and the more conspicuous the râles.

Disseminated tuberculosis.—True miliary tuberculosis is not likely to come to the attention of the military examiner. *The peribronchial type* is common and frequently not recognized. In the adolescent the peribronchial tuberculosis may be extending from the deep

lung without as yet developing a superficial focus. It may be manifested only by the presence of distant râles with or without slight changes in the breath sounds which are of slight bronchovesicular quality. If the case is well marked there will be impairment of expansibility of the affected side and increased vocal resonance. Less pronounced cases are distinguished from chronic bronchitis only by the character of the râles (coarser in bronchitis) and by their topical distribution.

More frequently the peribronchial type is found accompanying a superficial focus. Bronchovesicular breathing may extend some distance below the limits of the superficial focus with or without râles. But the most important manifestation of the peribronchial type is extension to the formerly sound side. There may be a small, obscure, apparently arrested lesion of one side, usually the right, with a peribronchial extension involving the whole or the greater part of the other lung manifested only by the presence of râles after expiration and cough.

Rejection.

A definitely demonstrated tuberculous lesion of more than insignificant size below the apex is cause for rejection whether such lesion be active or inactive.

The method of "expiration and cough."—In ambulant afebrile subjects harshness of breath sounds and prolongation of expiration characterize the old and relatively dry lesion, while the more acute the process the less marked are the breath changes and the greater are the conspicuousness and significance of râles. No examination for tuberculosis is complete without auscultation following a cough.

It is best executed as follows: Starting from the state of rest of the lung the subject forcibly expels the air from the lungs, reserving the last portion of the expiration for a short cough, after which inspiration immediately follows, but only enough air is inhaled to return the lung to the state of rest. The idea is to diminish the size of the bronchi as much as may be by expiration, then to cough to stir up forcibly such fluid as may be present in them. The moisture is more likely to be moved by the current of air and so produce râles when the tubes are of their least caliber. This procedure should invariably be employed in examinations in order to determine the activity of lesions found by other signs and also to detect the existence of fresh disseminated tuberculosis.

Examination of sputum.—The presence of tubercle bacilli in the sputum is a cause for rejection. Examiners should, however, take pains to convince themselves that the sputum examined came from the lungs of the person under examination. To this end they should insist that the sputum be coughed up in their presence or in that of the pathologist who makes the microscopical examination.

Tuberculin.—It is well recognized that a positive reaction to tuberculin, especially in the young adult, is not a proof of the presence of active clinically important tuberculosis. Tuberculin only demonstrates activity of the tuberculous process in the clinical sense when it can be shown to produce a focal reaction. Such reaction is not without danger. Since, therefore, tuberculin rarely leads to a correct diagnosis and may do injury, its general use in the diagnosis of tuberculosis in examinations for enlistment is prohibited.

X-ray.—Only well-marked pathological changes are revealed by radioscopy. For the accurate diagnosis of tuberculosis recourse should always be had to the study of the X-ray negative. It is not of course practicable always to use radiography extensively for the determination of tuberculosis during the examination of recruits. But the X-ray will doubtless be often employed in doubtful or disputed cases, so that it is necessary to consider the rules which should obtain in reading the radiograph.

Morbid changes in the lungs are shown by shadows due to two substances: First, blood; second, fully organized connective tissue. Blood imprints a shadow on the negative only when present in abundance. The congestion of lobar pneumonia is typical. Broncho-pneumonia of tuberculous origin may also cast shadows, but only when the process is acute, the congestion great. Frequently the tuberculous process runs so chronic a course that the inflammatory reaction is insufficient to congest the lung enough to produce a shadow. The shadow of congestion is not sharply outlined; it melts away at its borders.

Connective tissue in the parenchyma of the lung away from the hilus is not normally present in sufficient quantity to retard appreciably the passage of the X-rays except as it occurs in connection with and as a part of the various tubes, bronchi, blood vessels, and lymphatics. As a result of proliferative inflammation connective tissue develops as a fibrous thickening of these tubes,

particularly the bronchi and the lymph vessels, which casts a shadow deeper than normal; the older the process and the better organized the tissue, the denser the shadow and the sharper its outline. Tubercle, caseations, as such, cast no shadows distinguishable from the other tissues of the parenchyma. It has been found that cubes, 1 cubic cm. in size, of caseous tubercle when embedded in a healthy lung are indistinguishable by the X-ray. But if the caseations become calcified or are even impregnated abundantly with mineral salts they become opaque to the X-ray. In general, and especially if one has to do with the shadows of tubes, it may be said that fuzziness of outline means acute vascular congestion, an active process. On the other hand, when the shadows of the tubes are sharp we have a process which, if active at all, is at least not characterized by great acuity, is not congestive. There is what is called dry tuberculosis of the lung tissue, which inclines to abundant formation of connective tissue, to dry caseations and cicatrizations, or to complete transformation into fibrous tissue, characterized by sharply outlined granular spots and by more or less sharply marked bands and streaks. Special attention is called to the persistence of the sharply outlined dots and lines when activity of the tuberculous process no longer exists. The sharply outlined thickenings of the bronchi and other tubes may be evidence of an old inflammation now entirely obsolete, may be simply records of the ancient history of the pulmonary tuberculosis.

We do not see tubercles in the X-ray negatives. What we see is either sharply outlined calcifications and fibroses, or fuzzy congestions, or a combination of the two conditions. Cases are seen in which the X ray in general gives the same findings in both lungs while the autopsy proves one lung severely, the other slightly, diseased. Such cases illustrate well the limitations of X-ray diagnosis. What is seen in the X-ray negative is the thickened framework of old inflammation in the two lungs, in one accompanied by much parenchymatous disease of recent origin, in the other accompanied by little, the said parenchymatous disease being invisible to the X ray because neither sufficiently congested nor sufficiently organized to cast shadows.

Extensive systems of lines, many sharply outlined spots, or dense streaks do not, then, show an acute process.

Persons in good health with nearly or quite arrested tuberculosis are sometimes found by the X ray to present a picture of very extensive changes of this kind. Yet the prognosis in such cases is not good if the subjects be subjected to severe strain. The radiograph is a proof that the lungs have undergone serious changes. The danger is either that hardship will lead to a reactivation of the numerous more or less quiescent tuberculous lesions, or, if the process has been largely of the nature of fibrosis, that the lungs have been so damaged thereby as to unfit the person for an active life. If then the radiograph shows extensive dappled or mossy shadows or numerous spots and streaks the recruit should be rejected however good his health may appear to be. Shadows of a homogeneous opacity result from pleurisy and are not necessarily a cause for rejection in the absence of other signs.

Tuberculosis of the bronchial glands is a diagnosis often made from the radiograph on very slight foundation. The fact is that pronounced swelling of the lymph glands is characteristic of primary, not of advanced tuberculosis. It is rare that intrathoracic gland tuberculosis is of any clinical importance in the adult. With few exceptions cases of bronchial gland tuberculosis which lead to true symptoms of disease are confined to the first and second years of life. Only rarely, especially in adults, is so-called hilus gland tuberculosis a purely glandular process; it is rather a more or less pronounced disease of the surrounding hilus tissue in the form of peribronchial and infiltrative processes of the neighboring pulmonary tissues. That is, the interscapular dullness relied upon for the diagnosis of enlarged glands, if caused by lung conditions, is due to tuberculous processes in the region of the hilus, participation in which to any important extent on the part of the glands is a matter of conjecture. The presence of masses in the neighborhood of the hilus as shown by the X ray may indeed be cause for rejection, but rejection on account of relatively small opacities in that region on the ground that they indicate a bronchial gland tuberculosis of clinical importance certainly should not be permitted.

Résumé of indications from X-ray negatives.—The X ray shows: 1. Tuberculous disease confined to region of hilus in deep lung. 2. Extension upward toward apex or downward and outward toward base, confined to deep lung. 3. A fine line or two extending to apex with or without small focus or foci there—condition not determ-

inable by physical signs. 4. Clouding of apex without marked lines from hilus, probably largely pleuritic. 5. Well-marked lines extending to superficies of apex, usually, but not necessarily, with foci there—lesion accessible to physical examination. 6. Lines extending toward shoulder as well as apex. (*a*) If confined to deep lung may mean early and now obsolete exacerbation. (*b*) If extending to superficies denote larger lesion and less immunity than 5. 7. More or less widely diffused spots, lines, and streaks through a considerable portion of lower lobe approaching periphery of lung, with few or no auscultatory signs—deep peribronchial tuberculosis. 8. More extensive streaked opacities involving greater part of one or both lungs and extending to periphery with few or many physical signs—fibrocaseous tuberculosis, fibrosis preponderating in proportion to scantiness of more or less rounded spots or dots.

Conditions as shown by 1, 2, 3, 4, and 6 (*a*) are not causes for rejection. Cases under 5 are to be determined by physical examination. Cases under 6 (*b*), 7, and 8 are to be rejected.

NONTUBERCULOUS DISEASES OF THE LUNGS.

Accept registrants with acute bronchitis, chronic bronchitis unless well marked, and hay fever. Accept.

Accept registrants who give a history of operation for empyema if it is more than one year since the healing of the wound and the physical examinations of the chest are negative. Accept.

Accept registrants for special or limited military service with chronic sinuses of the thorax following operation for empyema, well marked chronic bronchitis, and pneumonoconiosis. Accept.

Registrants with pleurisy with effusion and no evidence of tuberculosis shall be placed among temporary defects for reexamination.

Reject registrants from all military service when the following diseases of the lungs can be established by the presence of physical signs: Syphilis, Malignant disease, actinomycosis, Hydatid disease, abscess, empyema, extensive bronchiectasis, fetid bronchitis, bronchial asthma, well-marked chronic bronchitis and emphysema, pleurisy with effusion. Reject.

Accept. Accept registrants with evidence of fracture of the rib or ribs even if there is union with deformity or excessive callus formation, providing the local lesion does not interfere with respiratory movement and the examination of the lungs is negative for any disqualifying lesion.

Accept. Accept registrants with syphilitic periostitis of rib, sternum, or clavicle.

Reject. Reject registrants with tuberculosis of the ribs or sternum.

Accept, remediable deferred group. Accept registrants for the remediable deferred group with post-typhoid periostitis with or without sinus.

Accept. Accept registrants with benign tumors of the breast or diffuse hypertrophy of the breast.

Reject. Reject registrants with definite signs of cancer of the breast or who bring authentic data of an operation for cancer of the breast.

Accept. Accept registrants with small palpable glands of the axilla.

XII. HEART AND BLOOD VESSELS.

Regulations for Local Board. (Section (184 (j) S. S. R.)

Test of heart and blood vessels. The physician on the Local Board shall make the following examinations of the heart and blood vessels:

1. The *examination* should in all cases include:

(*a*) Location and determination of character of apex-impulse.

(*b*) Auscultation of the heart sounds over apex, lower sternum, and second and third interspaces to right and left of sternum, noting accentuation of sounds and murmurs.

(*c*) Inspection of root of neck and upper thorax and percussion of first interspace on each side of manubrium for evidence of aneurysm.

(*d*) Count of radial pulse, observation of its rhythm, and palpation of radial arteries for unusual thickening or high tension.

(*e*) Exercise test: Hopping 100 times on one foot. At close count heart rate with stethoscope over apex, listening for murmurs and noting how long tachycardia and unusual dyspnea persist. After two minutes neither should be marked.

After this examination the Local Board shall accept all registrants who come within the standard for unconditional acceptance, which is as follows:

Acceptance.

2. Subjects with apex impulse within the left nipple line and not below the fifth interspace, of normal, not heaving character, with normal sounds, free from murmurs, without pulsation or dullness above the base of the heart, with regular pulse of normal rate, who have no unusual thickening of the arteries or evidence of high blood pressure, and who show a normal response to the exercise test, may be unconditionally accepted.

Reject.

3. The Local Board shall reject all registrants presenting definite symptoms of circulatory failure, viz, a combination of breathlessness, marked cyanosis, and edema.

4. All other cases shall be referred to the Medical Advisory Board.

Regulations for Medical Advisory Board.

The duties of the examiner are:

1. To exclude from active service in the Army any registrant affected with disease of the heart or blood vessels which impairs his ability to undergo severe bodily exertion.

2. To accept for service men who have been recommended for rejection because of supposed defects which do not indicate disease and do not impair the individual's ability to undergo severe bodily exertion.

3. To determine the importance of definite defects in the case of candidates for special service, not entailing severe bodily exertion, and to recommend acceptance or rejection for such special service.

Men who desire to serve their country may from patriotic motives endeavor to conceal a known valvular lesion which has given no symptoms. On the other hand, men drafted for service may allege or feign symptoms to obtain exemption. Registrants may be expected to present physicians' certificates to substantiate the existence of valvular disease. Many of these may be given in good faith, because of inadequate knowledge of the significance of certain frequent murmurs.

It is necessary, therefore, that the conclusions of the examiner shall be based on objective evidence in the widest sense, including both physical signs, cardiac rhythm, measurement of the blood pressure, and the observed effect of effort. Nevertheless, in the presence of questionable signs or symptoms, the history, especially of past rheumatic fever, may be a factor in the final

decision. No statements of the subject, however, will be accepted as proof of the existence of a cardio-vascular defect, unless supported by objective evidence.

Since it is the duty of examiners to protect the interests of the Government by preventing men from entering the service whose circulatory systems may be expected to break down under strain, and equally by preventing the exemption or discharge of fit subjects because of unimportant deviations from the normal, it will be necessary for them to exercise every care in the interpretation of their findings and to bear in mind constantly the murmurs and other departures from the supposed normal which may occur in perfectly healthy hearts.

Standard for unconditional acceptance.—Subjects with apex impulse within the left nipple line and not below the fifth interspace, of normal, not heaving, character, with normal sounds, free from murmurs, without pulsation or dullness above the base of the heart, with regular pulse of normal rate, who have no unusual thickening of the arteries or evidence of high blood pressure, and who show a normal response to the exercise test, may be unconditionally accepted.

All others who deviate from the above requirements in any particular shall be held for further examination, as follows:

1. Those with cardio-vascular disease of *sufficient importance to disqualify* for any service.

2. Those with transient or *insignificant abnormalities* known to occur in perfectly healthy hearts and *compatible with severe bodily exertion.*

3. Those with *defects* sufficient to disqualify for full active service, but *compatible with special and limited military service* requiring little bodily exertion.

Principles of interpretation.—The following principles are laid down for the guidance of examiners in their interpretation of abnormal signs and symptoms. In many cases the interpretation must be purely individual and based on the cumulative evidence of a number of relatively slight deviations from the normal. It can not be too strongly insisted on that, given a heart of normal size and responding normally to effort, *any murmur that is heard should be considered accidental and insignificant unless it can be positively demonstrated that it is a mitral or aortic diastolic murmur.* It should also be constantly borne in mind that the excitement of the examination

may produce violent and rapid heart action, often associated with a transient systolic murmur, which effects may erroneously be attributed to the effects of exertion. They will usually disappear promptly in the recumbent posture, but the examiner must be shrewd to distinguish the excitable individuals and take measures to eliminate psychic influences from the test, so far as possible.

Hypertrophy and dilatation of the heart.—Impulse to the left of the nipple line or below the sixth rib and of heaving character is cause for rejection. Its cause, either valvular disease or hypertension in the majority of cases, should be sought for. It should not be made a primary diagnosis unless careful examination fails to reveal a cause.

Impulse within these limits, but definitely heaving, or relative cardiac dullness extending to the left of the nipple line, or more than 4 cm. to right of the median line in large, more than 3 cm. in small individuals, should lead to careful examination for valvular disease, high blood pressure, emphysema, or other cause. Unless such other cause can be found, the response to exercise shall be the guide. Those cases with normal response to exercise may be accepted for special service (3); all others shall be rejected.

Valvular diseases.—Cardiac murmurs are the most certain physical signs by which valvular disease may be recognized and its location determined, but murmurs are very frequent in the absence of valvular lesions and may occur in perfectly healthy hearts, especially under the influence of excitement and exertion. Such *accidental murmurs* are always *systolic* in time. The most frequent are as follows:

Systolic murmurs.—(*a*) Those heard at the apex on excitement, especially when recumbent. Insignificant.

(*b*) Those heard over the second and third left interspaces during expiration, disappearing during forced inspiration. These are particularly common in men with flexible chests, who can produce extreme forced expiration and under such circumstances may be associated with definite thrill.

(*c*) Systolic accentuation of the respiratory murmur, especially on inspiration, heard near the apex or over the back.

None of the above shall be considered disqualifying for active service.

Other systolic murmurs unassociated with enlargement of the heart, alteration of the first sound, accentuation of the pulmonic second sound, or abnormal response to exercise may also be considered as without significance but should be noted.

Doubtful.

Loud *systolic murmurs*, audible at the apex and in the left back, if associated *with any enlargement of the heart*, with snapping first sound, or accentuation of the pulmonic second sound, shall be cause for rejection. If unassociated with these other signs and the response to exercise be normal the recruit may be accepted for special service (3).

Significant.

Systolic murmurs at the base, except as specified above, especially those heard in the *second right intercostal space*, require more careful scrutiny. They may be due to disease of the aortic valves. In this case they should be harsh, conveyed well into the neck, associated with an aortic diastolic murmur, with thrill, or with a marked enfeeblement of the aortic second sound. Any of these combinations shall disqualify. They are more often due to dilatation of the aorta, either syphilitic or arteriosclerotic. The other signs of dilatation should then be sought—increased dullness in the first and second interspaces to either side of the manubrium, pulsation in this area, accentuation of the aortic second sound. In doubtful cases X-ray examination and Wassermann test should be obtained. Where a slight systolic murmur in this situation is the only abnormal sign and the response to exercise normal, giving rise neither to breathlessness nor thoracic pain or distress, it shall not disqualify. Proved dilatation of the aortic arch, or syphilis of the aorta, shall be cause for rejection for active service, but, if without symptoms, shall not disqualify *for special service* (3). It shall be noted on the record. Systolic murmurs heard over the second and third left interspaces are almost always accidental and insignificant. When loud and harsh, heard over the upper left chest, front and back, or associated with thrill during quiet breathing, they may indicate congenital cardiac disease and shall disqualify.

Diastolic murmurs.—All diastolic murmurs, at apex or base, including presystolic murmurs, shall be considered evidence of valvular disease and cause for rejection. The secondary signs should be sought for, viz, enlargement of one or both sides of the heart, alteration

of the first or second sound, particularly a snapping first sound and accentuated pulmonic second sound in mitral disease, and the characteristic pulse of aortic insufficiency. In doubtful cases a definite history of rheumatic fever may be given weight. The exact diagnosis should be noted on the record.

Aneurism and dilatation of the aortic arch.—Aneurism, wherever situated, shall disqualify. Arythmia.

Aneurism of the thoracic aorta, unless large or placed near the anterior thoracic wall or giving rise to pressure symptoms, is difficult of detection. Simple dilatation of the aortic arch is a diagnosis which can rarely be made positively from physical signs alone. Therefore, when pulsation above the base of the heart, diastolic shock, well-marked dullness laterally to the manubrium, with a ringing second sound or a systolic or diastolic murmur over the dull area, or tracheal tug, inequality of the pupils, difference in the two radial pulses, alteration of the voice, or suspicious symptoms suggest the existence of aneurism or dilatation, X-ray examination and Wassermann test should be obtained. Any considerable dilatation of the aorta shall disqualify. Slight dilatation with a positive Wassermann reaction shall also disqualify. Slight dilatation with a negative Wassermann reaction shall not disqualify, if it be the only impairment and unassociated with symptoms and abnormal response to exercise. Precordial or other anginal pain, which the examiner is convinced is real, may occur without dyspnea and is significant.

Disturbances of rate and rhythm.—A persistent rate of 100 or over, when recumbent, should suggest the search for exophthalmic goiter, tuberculosis, or other infection, which would constitute cause for rejection. A persistent rate of 100 or over may persist for a limited time after recovery from a recent infectious disease, as typhoid fever; it may also accompany minor local infections, as pyorrhoea alveolaris, antrum, or sinus infections. Cases with rapid action for causes such as these, should be accepted and placed in the deferred remediable group. (Group B), or examination temporarily deferred. (187 S. S. R.) Persistent rapid heart action, in the absence of proof of these, and unassociated with enlargement of the heart, may require study in hospital to determine its significance. A constant rate of 100 or more should disqualify. Temporary tachycardia on excitement is

common. If extreme, the decision as to its significance must depend on other findings, especially on the response to exercise. A reliable history of attacks of severe tachycardia in the past, with any breathlessness on exertion, should be reported to the camp surgeon with request for watching of the recruit during his training.

A persistent rate of 50 or under suggests *heart block* and this should be decided by tracings. Heart block shall disqualify. Slow rate with normal rhythm and normal response to exercise shall not disqualify. *Complete irregularity* of the pulse indicates auricular fibrillation and shall disqualify. It is not compatible with normal response to exercise.

Occasional extra systoles or premature beats, if the heart be of normal size and the response to exercise normal, are of no significance. Very frequently extra systoles or premature beats require examination to determine if they are temporary. When persistent, but the only impairment, they should be reported to the camp surgeon with request for watching of the recruit during his training.

The irregularity (sinus irregularity) which consists in a quickening of the rate during inspiration and slowing during expiration is common in the young and is of no significance. It may be recognized most easily with the subject recumbent and breathing deeply.

Arteriosclerosis and hypertension.—All subjects with thickened arteries, apparently tense pulse and accentuation of the aortic second sound, shall have their blood pressures recorded when lying quietly, the systolic pressure by the palpatory and auscultatory, the diastolic by the auscultatory method. A systolic pressure of 200 mm. Hg. or over or a diastolic of 120 mm. Hg. or over shall disqualify. A systolic pressure persistently above 160 mm. or a diastolic above 100 mm. shall disqualify for active service, but if this be the only impairment, the recruit may be accepted for special and limited service (3). The urine should always be tested for albumen in these cases.

Simple thickening of the arteries without high blood pressure or enlargement of the heart and with normal response to exercise shall not disqualify.

Other conditions.—Cases with unusual findings, not covered by these instructions, may be determined on the general principle that, if the heart be not enlarged and

its response to effort be normal, it shall not disqualify. If the response to effort be impaired, but the heart normal in every other respect, and if the subject has not been capable in the past of ordinary active exercise, he should be accepted for special service (3) or reported to the camp surgeon for observation during his training.

BLOOD VESSELS.

Accept. Registrants who claim to suffer from intermittent claudication and whose pulsation in the peripheral vessels about the ankle is present shall be accepted for general military service.

Reject. Registrants with the objective signs of Raynaud's disease or erythromelalgia shall be rejected.

THROMBOPHLEBITIS, UPPER EXTREMITY

Accept as physically qualified for general military service registrants who give a history of thrombophlebitis of one extremity, provided it is one year since the onset of the disease and provided that the examination shows no swelling and no loss of function.

Accept as physically qualified for special or limited military service all other cases of thrombophlebitis of one upper extremity.

THROMBOPHLEBITIS, LOWER EXTREMITY.

Accept as physically qualified for general military service registrants who give a history of thrombophlebitis of one extremity, provided it is three years since the onset of the disease and provided that the examination shows no swelling and no loss of function.

Accept as physically qualified for special or limited military service all other cases of thrombophlebitis of one limb.

Reject as physically deficient and not physically qualified for military service all registrants with a history of or evidence of thrombophlebitis of both lower extremities.

XIII. ABDOMEN.

1. Regulations for Local Board. (Section 184 (k) S. S. R.)

Accept. *Accept* all registrants who after an inspection, percussion, and palpation of the abdomen show no enlargement of the liver and spleen and no tumor of the abdominal wall or within the abdomen.

Accept. *Accept* all registrants who give a history of abdominal trouble suggesting a chronic appendicitis or gall-bladder disease and who on examination present no signs of such diseases.

Accept. *Accept* all registrants with small or medium reducible inguinal, femoral, umbilical, and post-operative hernia.

Accept. *Accept* all registrants with abdominal scars who give a history of operation for hernia, appendicitis, gall-bladder disease, or for some abdominal injury, providing there is no large hernia in the scar.

Refer to the Medical Advisory Board all registrants who have jaundice, who have enlargement of the liver or spleen or palpable tumor of the abdominal wall or within the abdomen.

Refer to the Medical Advisory Board all registrants who from history and examination suggest very strongly the presence of a gastric or duodenal ulcer or some serious intra-abdominal disease.

Refer to the Medical Advisory Board all irreducible hernia and all very large hernia.

Reject no abdominal cases.

Kidney. When during the examination of the abdomen a kidney is palpable and even movable, if it is not enlarged, accept the registrant. If it is distinctly enlarged, refer to the Medical Advisory Board.

2. Regulations for Medical Advisory Board.

When abdominal scars of previous operations are found the patient shall be questioned as to the nature of the operation performed, and when necessary authentic data as to the nature of the operation shall be obtained in any way that seems best to the Medical Advisory Board.

The registrant shall be questioned to elicit positive or negative evidence of previous or present abdominal trouble.

Further examination should be regulated by the history and the result of the examination by inspection, palpation, and percussion.

COMPLETE EXAMINATION.

When necessary, the examination may be completed as follows: Blood count, Wassermann, gastric lavage for the chemical and microscopic examination and gastric residual; the examination of the rectum by the finger and the rectum and lower sigmoid by the proctoscope;

the chemical and microscopic examination of the stools; X-ray pictures of the abdomen for the presence or absence of stone in the kidney or gall bladder, X-ray pictures and flouroscopic examination after bismuth per mouth or per rectum, and the complete examination of the urine.

3. Method and order of examination.

The Medical Advisory Board is urged in all abdominal cases before proceeding to the more difficult and time-taking method to exhaust the possibilities of detecting the presence or absence of abdominal lesions by a thorough physical examination by inspection, palpation and oscultation, and by a studious consideration of the registrant's positive or negative history.

CAUTION IN REGARD TO THE DIAGNOSIS OF AN ABDOMINAL TUMOR.

Some registrants purposely retain the urine so that at the examination a tumor due to the distension of the urinary bladder may be palpated; therefore, in all such cases the examination of the abdomen shall be considered *incomplete* until the registrant has passed urine before the examiner of the Medical Advisory Board or, in case of any doubt, a catheter has been passed through the urethra into the bladder and such a voluntary retention of urine demonstrated.

It must also be remembered that in some cases the abdominal tumor may be due to retention of the urine through no purposable act of the registrant, but due to fright or some lesion of the urethra or prostate, or to some lesion of the nervous system. All of these facts must be considered in cases of this kind.

4. Hernia.

All other types and degrees of hernia not mentioned in the regulations for the Local Board shall be carefully studied by the Medical Advisory Board. If after this examination it is the opinion of the Medical Advisory Board the hernia is remediable by operation and the registrant is otherwise physically fit, the registrant shall be accepted for general military service in the deferred remediable group (Group B) and diagnosed hernia.

If it is the opinion of the Medical Advisory Board the hernia is not remediable by operation or the probability of a successful operation is small, the registrant, if other-

wise physically fit, shall be placed in the group as physically qualified for special or limited military service. (Group C.)

Reject. Registrants with hernia of any type so large, reducible or irreducible, *apparently not remediable by operation with a large probability of a successful result,* and who on account of this hernia show every evidence of being incapacitated, they shall be declared physically deficient and not physically qualified for military service by reason of an irremediable disqualifying hernia.

The Medical Advisory Board must remember that in men under age 31 the majority of all types of hernias are *remediable by operation.*

The most difficult hernias to cure are the very large post operative hernia and inguinal, femoral hernia which have recurred once or more frequently after operation.

SCAR PAIN.

Accept. Registrants who have been operated upon for any type of hernia or registrants with small post operative hernia who claim that they have scar pain who are otherwise physically fit shall be accepted as physically qualified for general military service.

IRREDUCIBLE HERNIA.

It is to be remembered that because the apparent hernia is irreducible this of itself is not evidence that the hernia is not remediable by operation.

Umbilical hernias are frequently irreducible because the sac contains adherent or retained omentum. Femoral and inguinal hernias are often irreducible because the sac contains walled-off fluid or retained or adherent omentum.

Accept operable irreducible hernia for general military service deferred remediable group. (Group B.)

The association of inguinal hernia with undescended testicle with varicocele or hydrocele is not a cause for rejection.

5. Appendicitis.

Registrants who at the examination show the definite local signs of an acute or subsided appendicitis shall be allowed a reasonable time for recovery. (See Temporary defects, section 187, S. S. R.).

Registrants confined to their homes or to a hospital waiting operation for appendicitis or convalescing from

an operation from appendicitis or recovering from an attack of appendicitis shall be given a reasonable time before being subjected to a physical examination by the Medical Advisory Board.

Registrants who have been operated upon for appendicitis with or without drainage and who complain of scar pain, if otherwise physically fit, shall be accepted for general military service. Accept.

Registrants who give a history of operation for appendicitis with or without drainage and who since this operation have had one or more definite attacks of intestinal obstruction relieved with or without operation, if these data can be confirmed by authentic records, should be given a complete abdominal examination. When this examination is complete and the authentic records have been carefully considered, the Medical Advisory Board shall accept such a registrant as physically qualified for general military service when, in their opinion, the probability of further attacks of intestinal obstruction are very slight.

If, in their opinion, the probability of further attacks of the obstruction are not slight, the registrant shall be rejected.

6. Gall bladder disease.

Registrants who at examination show definite local signs of acute subsiding or chronic cholecystitis with or without jaundice and registrants confined to their homes or to a hospital waiting operation for gall bladder trouble with or without jaundice or convalescing from an operation or recovering from an attack shall be given a reasonable time before being subjected to an examination by the Medical Advisory Board.

Registrants who give a history of one or more attacks of what suggests cholecystitis with or without jaundice and who at examination show no local symptoms or but slight local symptoms shall be subjected to a complete abdominal examination. When the diagnosis by the Medical Advisory Board is cholecystitis without jaundice, and the registrant is otherwise physically fit, he shall be accepted as physically qualified for general military service. Accept.

Registrants who give a history of an operation upon the gall bladder (drainage or removal of the gall bladder) or the history of removal of stones from the common duct Accept.

and who at examination are free from jaundice and apparently relieved from the former trouble shall be accepted as physically qualified for general military service. Those who complain of scar pain shall also be accepted. Those who complain of definite recurrent attacks with or without jaundice shall be given a thorough abdominal examination, after which the Medical Advisory Board shall use their own judgment as to whether they shall be accepted as physically qualified for general military service or accepted for general military service, deferred remedial group (Group B).

7. Jaundice.

Registrants who show the signs of jaundice based upon the color of the skin, bile in the urine, and clay-colored stools, shall be subjected to a complete abdominal examination. Such registrants shall not be accepted for either general or special military service until the jaundice has disappeared or until the cause of the jaundice has been ascertained.

Jaundice.

Catarrhal jaundice as a rule disappears in from two to three weeks. Jaundice associated with cholecystitis or pancreatitis as a rule disappears within a few weeks; hence registrants with this type of jaundice can be reexamined after the jaundice disappears.

The examination of registrants with jaundice shall be temporarily delayed until the jaundice has disappeared, but for not more than two months. When the jaundice disappears they shall be reexamined in the ordinary way. If the jaundice persists, they shall be declared as unfit for any military service. Registrants with jaundice and a plus Wassermann should be advised to receive salvarsan and the usual antisyphilitic treatment during the period of delay. No case of persistent jaundice should be accepted for general military service or for special or limited military service.

8. Intestinal obstruction.

The relation of intestinal obstruction to appendicitis has been discussed.

Excluding these causes of intestinal obstruction, this lesion is rare in men between the ages of 21 to 31.

Registrants who give a history of one or more attacks of intestinal obstruction with or without authentic data should receive a thorough examination, and if the findings are negative, should be accepted for general military

service. If the examination brings out any objective findings, indicating a definite intraabdominal lesion, other than hernia or appendicitis, the registrant should be placed in the deferred remediable group (Group B).

Registrants who give a history of an operation for intestinal obstruction from causes other than hernia or appendicitis should furnish authentic data.

If the cause of this obstruction was apparently removed at this operation and the registrants have been free from definite attacks since, the registrant should be accepted for general military service. Accept.

When the cause of the intestinal obstruction revealed at operation was some irremediable disease such as tuberculous peritonitis, or cancer of the colon (tumor not removed), the registrant should be rejected unconditionally.

Registrants who have had previous operations may complain of scar pain, or they may have been told that they have adhesions. A sharp distinction should be made, if possible, from such scar pain and such abdominal discomfort supposed to be due to adhesions and definite attacks of intestinal obstruction. Scar pain.

Scar pain and discomforts due to abdominal adhesions are of themselves not causes for rejection. Individuals not subject to the selective draft often exaggerate the discomforts of scar pain and supposed intestinal adhesions. Registrants may in some instances attempt to claim for disability on account of scar pain and intestinal adhesions, following some former operation. Accept.

Long experience with observations of this kind clearly demonstrates that scar pain and discomforts supposed to be due to an intestinal adhesion with negative findings at a careful examination do not incapacitate the individual from heavy physical work in civilian occupations and therefore should not incapacitate them from general military service.

9. Stomach, duodenum, and colon.

Registrants may complain of weak stomach, indigestion, dyspepsia, constipation, belching, vomiting, various types and degrees of abdominal discomfort; they may claim that they have been told that they have a gastric or duodenal ulcer or other chronic inflammation of the gastro-intestinal tract, or ptosis of the stomach and colon; they may give the history of an operation other than for hernia, appendicitis, gall-bladder disease, or intestinal obstruction.

The registrant may give such a definite history as the vomiting of blood or the passing of blood per rectum.

In cases of this kind it may be necessary to make a complete abdominal examination before coming to a definite conclusion. In order to facilitate this, not only for economy of time but for certainty of results, an order of the examination should be adopted which will accomplish this.

Before proceeding with the complete examination of the abdomen the following examination should be made first:

ASSOCIATED DISEASES.

The registrant may have lesions *without* the abdomen, which may have some causal relation to the abdominal condition, or whether they are causal or not may of themselves place the registrant as physically disqualified for military service, or in the group for limited or special military service. For this reason weigh and measure the registrant, examine the heart, lungs (especially for tuberculosis), and urine first. Then examine the blood.

Examine the nose, throat, mouth, and teeth for focal infection; examine the thyroid and look for toxic symptoms.

Examine the pupils and reflexes for the presence of signs of organic diseases of the nervous system.

When the registrant passes all other examinations within the standard of unconditional acceptance, with or without remediable defects, or when no lesion has been found which places the registrant in the group for limited military service, proceed with the complete examination of the gastro-intestinal tract as follows:

Inspection.—Inspection of the abdomen may reveal tumors, and in emaciated individuals the outlines of the stomach may be visible, also peristalitis of the stomach and intestines in cases of pyloric stenosis or intestinal tumors.

Palpation.—Superficial palpation may give important information regarding the location of tender areas, or muscular rigidity over the stomach, intestines, gall bladder, and appendix. Deep palpation may locate and determine the size of the abdominal tumors. The effort should be made to palpate the liver, spleen and kidneys in every case.

Fecal masses may simulate abdominal tumors, making it necessary to clear out the intestinal tract with a laxative before the second examination. An expensile

or pulsating aorta has been known to be mistaken for an aneurysm, or abdominal tumor.

Percussion.—In every examination of the abdomen, percussion should be employed to outline the size of the liver and spleen and to ascertain whether a palpable tumor is dull or tympanic. Percussion is the best method of demonstrating whether there is encysted or free fluid in the peritoneal cavity.

Auscultation.—This method may be employed to outline the stomach and colon. However, the X-ray plate or fluoroscopy is the most accurate method for outlining the position and the size of the stomach and colon.

10. The laboratory investigations in gastrointestinal lesions.

Test meal.—When it seems necessary or advisable, and the registrant consents to the procedure, the Ewald or the Dock test breakfast should be given, to be removed in an hour by the expression or aspiration method.

The fasting stomach.—The examination of the contents of the fasting stomach (before breakfast) is of great importance in suspected ulcer, carcinoma, and gastrectasis from other causes.

Value of chemical examination of stomach contents in ulcer and carcinoma.—The chemical examination of the stomach contents is of much value in making the diagnosis of ulcer and carcinoma of the stomach, as it is in many other gastric diseases. Hyperchlorhydria does not always mean ulcer, nor does achlorhydria necessarily indicate carcinoma; but in ulcer, except in the long-standing cases, there is usually an increase in hydrochloric acid; and in the great majority of cases of carcinoma of the stomach there is absence of hydrochloric acid, and the presence of lactic and other organic acids, in the stomach contents. Therefore, when there are subjective symptoms of ulcer, with a hyperchlorhydria and the presence of occult blood in the stools, the diagnosis of ulcer is probable; and when there are other evidences of gastric carcinoma the absence of hydrochloric acid and the presence of lactic acid is certainly suggestive.

Hyperacidity and achylia.—It should not be forgotten that hyperacidity may occur in gall stones, chronic appendicitis and gastric neuroses; and that achylia may occur from chronic catarrhal, or atrophic gastritis, and as a functional condition. The chemical examination is of value only when considered with symptoms and other

laboratory findings, just as the presence of albumin in the urine, without other examination, does not make certain the diagnosis of nephritis.

Blood.—The constant presence of blood in the stomach contents, unless the patient retches when the tube is introduced, is suggestive of ulcer or carcinoma.

Microscopic examination of stomach contents.—The microscopic examination of stomach contents is not of a great deal of value in the examination of men of the draft age, though occasionally particles of ulcer or cancer tissue may come up through the tube. The Boas-Öppler bacillus is found in the stomach contents in 90 per cent of the cases of gastric carcinoma. This bacillus has also been found in the stagnant contents of the stomach in which lactic acid was also present, in cases of simple gastrectasis. Blood and pus cells are usually present in the stomach contents, even in the early stages, of gastric carcinoma.

THE FECES.

When indicated, the feces may be examined for occult blood and parasites. Further examination of the feces is left to the discretion of the Medical Advisory Board.

X-RAY EXAMINATIONS.

The X ray, while not infallible, is the most important aid in the diagnosis of gastrointestinal diseases. It gives information regarding the size, contour, position, and muscular function of the stomach and intestines that can be obtained from no other source. It is therefore advisable, but not essential, in cases of suspected ulcer or carcinoma, or in gastroenteroptosis, for the registrant to be given the benefit of an X-ray examination, provided that a competent röntgenologist is available. The interpretation of röntgenoscopic or röntgenographic findings is of the greatest importance. It is often better to have no X-ray examination than to have it done by a man of limited experience, or with an inferior röntgenological outfit.

When the examiner has had the experience, fluoroscopic examinations with the X rays should be made first, and plates only taken when necessary.

In the large majority of cases it may be safer to take one plate of the abdomen first before the bismuth meal is administered. The object of this plate is to reveal or

exclude stome in the ureter or kidney, gall-stones, calcified mesenteric glands, or any changes in the bones of the vertebræ and pelvis. If present, this plate will also show enlargment of the liver, spleen, and kidney.

11. Conclusions from findings of complete examination.

THESE LABORATORY INVESTIGATIONS IN GASTROINTESTINAL LESIONS REQUIRE TIME AND TO BE OF VALUE MUST BE EXACT. THE MEDICAL ADVISORY BOARD SHOULD USE ITS OWN JUDGMENT AS TO WHEN THESE LABORATORY INVESTIGATIONS SHOULD BE MADE.

IT IS IMPORTANT TO EMPHASIZE HERE THAT OF ALL THE LABORATORY TESTS JUST OUTLINED, THE ESTIMATION OF GASTRIC RESIDUUM ON A FASTING STOMACH IS PERHAPS MORE IMPORTANT THAN THE CHEMISTRY OF THE MATERIAL WITHDRAWN FROM THE STOMACH AFTER A TEST MEAL.

REGISTRANTS WITH DEFINITE GASTRIC RESIDUUM DUE TO SOME REMEDIABLE DEFECT SHOULD BE ACCEPTED FOR GENERAL MILITARY SERVICE IN THE DEFERRED REMEDIABLE GROUP. (GROUP B.)

REGISTRANTS WITH DEFINITE BLOOD IN THE GASTRIC CONTENTS SHOULD BE HELD IN THE GROUP OF TEMPORARY DEFECTS, SECTION 187, S. S. R., AND THEN IF IT DOES NOT DISAPPEAR AFTER A REASONABLE TIME, BE ACCEPTED FOR GENERAL MILITARY SERVICE IN THE DEFERRED REMEDIABLE GROUP (GROUP B) IF IN THE OPINION OF THE MEDICAL ADVISORY BOARD THE CAUSE OF THE BLOOD IS REMEDIABLE

REGISTRANTS WHOSE FECES SHOW OCCULT BLOOD IN REPEATED EXAMINATIONS SHOULD BE ACCEPTED FOR GENERAL MILITARY SERVICE IF THE CAUSE OF THE BLOOD IS DUE TO SOME SIMPLE DEFECT WHICH COMES WITHIN THE STANDARDS OF UNCONDITIONAL ACCEPTANCE, AS HEMORRHOIDS, SMALL SUPERFICIAL ULCER OF THE RECTUM, FISSURE OR ANY OF THE INTESTINAL PARASITES. IN OTHER CASES, WHEN THE CAUSE OF THE BLOOD IS APPARENTLY DUE TO SOME REMEDIABLE DEFECT SUCH AS GASTRIC OR DUODENAL ULCER THE REGISTRANT SHALL BE ACCEPTED FOR GENERAL MILITARY SERVICE IN THE DEFERRED REMEDIABLE GROUP (GROUP B). IN DOUBTFUL CASES THE REGISTRANT CAN BE HELD FOR FURTHER EXAMINATION IN THE GROUP OF TEMPORARY DEFECTS. SEE SECTION 187, S. S. R.

Registrants who complain of indigestion, dyspepsia, weak stomach, constipation, abdominal pain, belching of Accept.

gas, or other subjective symptoms, in which this thorough examination is made, and found negative of organic disease, shall be accepted for general military service.

Accept. Registrants who complain of the above symptoms and show at the examination slight ptosis of the stomach, colon, or both, with no other objective findings, shall be accepted for general military service.

12. **Achylia gastrica.**

Accept. Registrants with this definite finding in the gastric analysis in which there is associated secondary anemia, under weight, diarrhea, and nervous symptoms, should be placed in deferred remediable group. (Group B.)

13. **Gastric succorrhea.**

Accept. Continuous or periodic gastric hypersecretion must depend upon the demonstration of gastric residuum. If the X ray shows pyloric obstruction or any other evidence of an operable benign lesion as its cause, the registrant should be placed in the deferred remediable group. (Group B.)

14. **Pellagra.**

Accept. It is probable that many incipient pellagrins will be accepted for general military service by both the local and medical advisory boards because the examination reveals no objective symptoms. Such registrants shall be accepted for general military service.

The most important symptoms of pellagra are burning sensation in the mouth, pyrosis (heartburn), vague discomfort or even pain in the abdomen, diarrhea in 90 per cent of the cases, and burning sensation in the rectum. The skin symptoms are not pronounced during the winter months, and the digestive symptoms may occur without the dermatitis on the dorsal surfaces of the hands, feet, and elbows.

Pellagra does not disqualify for military service unless the registrant is bedridden or has pronounced psychopathic symptoms, and even then the disqualification is only temporary, because pellagrins, even in what was formerly considered the advanced stage, with proper diet and treatment usually made rapid and complete recovery.

Accept for general military service in the deferred remedial group (Group B) registrants with pellagra in advanced stages who are temporarily incapacitated.

15. **Gastric ulcer.**

The diagnosis of gastric ulcer must depend upon verified history and objective findings in the gastric contents and on gastric residuum, on stools, and on the X-ray study. Registrants exhibiting the objective findings of an acute or chronic gastric ulcer should be placed in the deferred remediable group. (Group B.)

Registrants who give a verified history of gastric ulcer without operation should be accepted for general military service if they present no objective findings at the present examination, and have been without symptoms for six or more months. Otherwise advise Local Board to temporarily defer for reexamination, 187, S. S. R.

Registrants who have been operated upon for gastric ulcer must present authentic records of the findings at the operation and of the method of operation.

Registrants who have been operated upon for gastric ulcer by the Finney pyloroplasty or by resection of the pylorus with a Kocher anastomosis, and who are apparently well and present no definite objective findings at the examination, and when it is at least six months since the operation, shall be accepted for general military service. Otherwise advise Local Board to temporarily defer for reexamination, 187, S. S. R.

When the operation has been a gastroenterostomy with or without resection, and when the registrants are apparently well, with no objective findings, and it has been six months since the operation, they shall be accepted for general military service (Group A), or special or limited military service (Group C), according to the judgment of the Advisory Board.

Registrants who have not been relieved by operation and who still have objective findings shall be placed in the group for limited or special military service. (Group C.)

16. **Duodenal ulcer.**

The rulings in regard to duodenal ulcer shall be identical with those just given for gastric ulcer.

17. **Gastric cancer.**

Under the age of 31 this lesion is rare. It is often impossible to make the diagnosis clinically.

When the registrant claims to have been operated upon for gastric carcinoma and furnishes authenticated data, he shall be rejected as not physically qualified for military service by reason of carcinoma of the stomach. Reject.

Reject

When the examination suggests the large probability of carcinoma of the stomach, he shall be rejected.

18. Colon—Intestinal stasis.

Registrants who claim a previous resection of right portion, or more, of the colon, or some form of ileo-colostomy with anastomosis, should have this claim verified by the Medical Advisory Board, by means of a fluoroscopic examination or X-ray plate. When there is no doubt as to the resection or anastomosis, the registrant shall be rejected (Group D), or placed in the group for limited or special military service (Group C), according to the degree of relief from symptoms, his weight and present ability to pursue his civil occupations.

Reject, or Group C.

Accept.

Registrants who claim symptoms or who claim to have been treated for gastroptosis, enteroptosis, nephroptosis, or general ptosis of the abdominal viscera or the so-called intestinal stasis or registrants who claim to have been operated upon for any of the enumerated conditions and in which the operation was not a resection of the colon or an ileo-colostomy shall be accepted for general military service unless there are objective findings other than ptosis.

The regularity of habits, physical exercise, and the outdoor life should render the majority of these conditions remedial by camp life.

It has been definitely proven that the position of the stomach and intestines has nothing or very little to do with digestion or health of the individual.

The majority of cases with extreme symptoms will be underweight and will show objective findings.

19. Colon and rectum carcinoma.

The suggestion of this lesion will be a history of one or more attacks of intestinal obstruction, marked constipation or diarrhea, and blood in the stools. The objective findings are the palpation of an abdominal tumor or the ulcerated mass per rectum, the inspection of an ulcerated tumor through the proctoscope.

Secondary anemia and loss of weight may accompany cancer of the colon, but are not of themselves diagnostic.

When the supposed carcinoma can *not* be felt per rectum or be seen with the proctoscope, an X-ray examination should be made. In cancer of the colon at the sigmoid and above, the bismuth picture should show a definite narrowing of the lumen of the colon.

Irrespective of symptoms, some positive objective finding must be obtained before even a tentative diagnosis of cancer of the colon can be made.

When the diagnosis of cancer of the colon is made by palpation per rectum or inspection per proctoscope, the registrant shall be rejected. When the diagnosis is based upon the palpation of the abdominal tumor or the X-ray examination, the registrant may be placed in the deferred remediable group (Group B), or rejected, according to the judgment of the Medical Advisory Board. Reject.

Registrants who bring verified data that they have had an exploratory operation for an inoperable carcinoma of the colon should be subjected to the same examination as if they have had no such operation, because if this claim is correct there will be definite objective findings.

Registrants who bring verified data that they have been operated upon for a cancer of the colon and that this operation had consisted of resection of a portion of the colon and anastomosis should be accepted for general military service if three years or more have passed since the operation and they are apparently well. Other cases should be placed in the group for limited or special military service. (Group C.) Accept.

Registrants who bring verified data that they have been operated upon for cancer of the rectum or lower colon from below or by the combined sacral and abdominal method shall be rejected. Reject.

20. Colon—Colitis—Proctitis.

The diagnosis of either of these lesions must rest upon definite objective findings. Diarrhea of itself, with or without blood, is not a cause for rejection, but simply an indication for a thorough examination. So-called mucous colitis without objective findings is not a cause for rejection.

In cases of this kind there must be a thorough examination with the proctoscope. If there are numerous polypoid growths, with or without ulceration, the registrant shall be placed in the group of special or limited military service (Group C), or rejected, according to his ability to work.

If there is a single ulcer, carcinoma and tuberculosis must be excluded, by microscopic study, and syphilis by a Wassermann and the therapeutic use of salvarsan.

Accept registrants with ulcers of rectum and sigmoid which are neither malignant nor tuberculous.

21. **Examination of stools.**

When indicated the feces shall be examined. The presence of blood is not a cause for rejection, but simply an indication for a thorough examination as to its cause.

The presence of intestinal parasites of any kind in the stools does not disqualify, and registrants should be accepted for general military service.

22. **Liver.**

Moderate enlargement of the liver without any other objective findings shall not disqualify.

Reject. A huge enlargement of the liver shall of itself render the registrant unfit for any military service.

Enlarged or atrophied liver with jaundice and fluid in the peritoneal cavity disqualifies if the Wassermann test is negative. If the Wassermann test is positive, the

Doubtful. patient should be placed in the group of temporary defects (Sec. 187, S. S. R.), until the result of appropriate antisyphilitic treatment is established. The majority of these cases, however, are not relieved and should be rejected.

LIVER ABSCESS.

Accept. Registrants who bring a verified history of an operation for an abscess of the liver shall be accepted for general military service if it is more than six months since the operation and they are apparently free from objective symptoms. Otherwise reject.

Registrant with definite objective symptoms of abscess of the liver should be held as temporary defects. (Sec. 187, S. S. R.)

23. **Spleen.**

Accept. Moderate enlargement of the spleen with no other objective findings shall not disqualify, but the blood of such registrants should be examined for malaria. If the plasmodium is found the registrant shall be accepted for general military service. (Group A.)

Reject. A huge enlargement of the spleen shall reject.

When the spleen is enlarged, examination of the blood should be made for leukæmia and other types of anemia which, when definitely established, shall reject.

24. **Abdominal tumors.**

The palpation of a definite abdominal tumor calls for a thorough investigation of its nature.

In paragraph 3, page 59, attention is called to distention of the urinary bladder as one of the causes of an abdominal tumor.

When the palpated tumor suggests an appendicitis with abscess or inflammatory exudate, or a distended gall-bladder. (See Sec. XIII, 5 and 6, this Manual.) Accepted and sent to camp.

If the palpable tumor is in the region of the kidney, see genitourinary section, paragraph xv, page 80.

Abdominal tumors due to enlargement of the liver or spleen, or to a supposed cancer of the colon have been discussed.

The clinical diagnosis of the cause and nature of any abdominal tumor is always difficult. The number of cases of abdominal tumor in men under the age of 31 years is small. For this reason when the diagnosis is doubtful the registrant should be placed in the group of temporary defects (sec. 187, S. S. R.), unless the Medical Advisory Board is convinced that the tumor is incurable or inoperable, when he should be rejected.

25. **Tuberculous peritonitis.**

The objective findings of this lesion are the palpation of an abdominal mass and the demonstration of fluid in the peritoneal cavity; as a rule, also, the registrant will be under weight and anemic and exhibit fever. Irrespective of the diagnosis, such objective findings are causes for rejection. Reject.

26. **Tumors of the abdominal wall.**

Those due to irreducible hernia have been discussed.

The common tumor of the abdominal wall is a fibroma in the area of the recti muscles. Registrants with tumors of this kind should be accepted. Accept.

27. **Fistula.**

Sinuses in the abdominal wall communicating with hollow viscera, whether spontaneous in origin or following operation or injury, should be carefully investigated.

If in the opinion of the Medical Advisory Board the lesion is distinctly operable and curable, the registrant should be placed in the deferred remediable group (Group B). When in the opinion of the Medical Advisory Board there is a serious question as to its operability or Doubtful.

curability, the registrant should be rejected or accepted for special or special military service. (Group C.)

Now and then after the drainage for appendicitis a deep sinus may persist for months without fecal matter exuding through this sinus. In the majority of such cases operation is contraindicated. Registrants with sinuses of such character should be placed in the group or temporary defects. (Sec. 187, S. S. R.).

XIV. ANUS.

Regulations for the Local Board. (Section 184 (l), S. S. R.)

Acceptance. *Accept* all registrants in which the anus is apparently normal and all with small external and internal hemorrhoids, fissures, and condylomata.

Refer all other cases to the Medical Advisory Board.

Lesions. Reject no lesions in this area.

Regulations for the Medical Advisory Board.

Accept. *Accept* all registrants with external hemorrhoids and with internal hemorrhoids, providing the local condition is not interfering with the registrant's ability to work and providing an examination reveals no indication for immediate operation.

Accept remediable deferred group. Place in the *remediable deferred group* (Group B), all cases of internal hemorrhoids which on account of bleeding or prolapse are evidently giving discomfort and interfering with the work of the registrant.

Accept remediable deferred group. Place in the *remediable deferred group* (Group B), with hemorrhoids and prolapse of the rectum of a degree as easily operable as the ordinary case of internal hemorrhoids.

Reject. *Reject* from all military service registrants with an extreme degree of prolapse of the rectum which in the opinion of the Medical Advisory Board are not remediable by operation.

Accept. Place all registrants with a simple fistula in ano in the remediable deferred group (Group B), provided lesion seems operable.

Reject. *Reject* from all military service registrants with irremideable multiple fistula in ano, especially those which have recurred once or more after operation.

In all cases of registrants with fistula in ano accepted for general military service, remember the possibility of incipient tuberculosis of the lungs.

Accept. *Accept* registrants who claim they have pruritis ani, providing the urine shows no sugar.

Reject registrants from all military service with paralysis of the sphincter ani associated with lost control and withholding the feces in the lower bowel irrespective of the cause. Reject.

Reject registrants from all military service in which there is a definite and pronounced stricture in the area of the anus or lower rectum irrespective of its cause. Reject.

Accept registrants who have been operated upon for any benign lesion in the region of the anus and lower rectum, providing they have control of the stool and no marked stricture. Accept.

In the examination for lesions in the region of the anus and lower rectum there must be in every instance a rectal examination with the finger and inspection. The best position for inspection is the knee chest. In this position and during inspection the registrant should be requested to bear down. Examination of annus.

When indicated, the lower rectum should be examined with the proctoscope. Proctoscope.

Reject registrants with definite evidence of cancer of the anus or lower rectum, or who bring verified evidence that they have been operated on for this lesion, irrespective of whether there is local recurrence or not. Reject.

XV. GENITO-URINARY ORGANS AND VENEREAL DISEASES.

Regulations for the Local Board. (Section 184 (m) S. S. R.)

Reject extraversion of the bladder, distinct hermaphrodites, and registrants whose penis has been totally destroyed by operation or disease. Rejection.

Accept all cases with no signs of disease of the genito-urinary organs, all acute and chronic cases of gonorrhea and syphilis who have no complications permanently incapacitating. Acceptance.

Accept varicocele, hydrocele, undescended testicle, and registrants with but one testicle, providing they do not give a definite history that the removed testicle was the seat of malignant disease. Acceptance.

Refer all cases in which the history and examination indicate an acute or chronic nephritis, all cases in which you find blood in the urine, and all other doubtful cases to the Medical Advisory Board. Physical examination.

Registrants with gonorrhea or syphilis should be advised to accept treatment pending receipt of orders to report for duty. Gonorrhea or syphilis to be treated.

VENEREAL DISEASES.

Gonorrhea and its complications.

Registrants temporarily incapacitated with the complications of gonorrhea, syphilis, or chancroid may be placed in the group of temporary defects, section 187, S. S. R., and granted a reasonable delay before completing the physical examination. During this time they should be urged to take proper treatment.

Accept. It is of the utmost importance for the Medical Advisory Board to distinctly bear in mind that gonorrhea in all of its stages does not unfit a registrant for general military service.

Accept. All the complications of gonorrhea which are remediable shall be accepted for general military service. Stricture, fistula, abscess, epididymitis, seminal vesiculitis, prostatitis, cystitis, and joint complications, shall be accepted if in the judgment of the Medical Advisory Board the condition is remediable. If the Medical Advisory Board is not in a position to make a thorough investigation with the instruments of precision, or if it is in any doubt, the registrant shall be accepted for general military service.

Treatment of gonorrhea. In all the cantonments provision has been made for the segregation and treatment by experts of all registrants suffering with gonorrhea and its complications.

Accept. For this reason every registrant suffering with gonorrhea with or without remediable complications should be accepted as physically qualified for general military service. (Group A.)

If the registrant can be given proper treatment, this can be advised and instituted pending receipt of orders to report for duty.

This treatment should be given only by members of the profession specially trained with the modern instruments of precision, modern methods and who have had large experience.

When the joint complications of gonorrhea have reached a stage of distinct ankylosis, the classification of the registrant will be made upon the actual resultant loss of function as described in Section XVI, and will not depend upon the presence or absence of gonorrhoea or any other complication.

Accept. *Syphilis* and all its remediable complications shall be accepted for general military service. The registrant

should be advised treatment pending receipt of orders to report for duty.

Accept. *Chancroid and Chancroidal Glands of the Groin* shall be accepted for general military service unless in the opinion of the Medical Advisory Board it is of a degree in which it would be unsafe to order the registrant to a cantonment. When this unusual incapacitating complication is present the registrant shall be considered as having a temporary defect, section 187, S. S. R.

In all cases the registrant shall be advised treatment pending receipt of orders to report for duty.

Registrants with chancroid, healed or unhealed, and with infected or enlarged glands in the groin, and who consent to operation upon these glands, should not be subjected to such operation unless there are definite signs of suppuration and the extent of the operation must be confined to incision and guarded curetting. It is the consensus of opinion among surgeons of experience that the complete dissection of the glands in the groin for gonorrhœal or chancroidal lymphangitis not only prolongs convalescence, but is often followed by lymphatic œdema of the penis, scrotum, and leg, in some cases to a degree that may be called elephantiasis.

Accept. Registrants with *phimosis*, even with adherent prepuce, shall be accepted for general military service; even though the registrant consents, circumcision should not be performed unless it is distinctly indicated.

Accept. *Benign warts and other benign tumors of the glans penis and the prepuce* and the so-called venereal warts, do not disqualify the registrant for general military service. If the registrant consents, their removal may be performed pending receipt of orders to report for duty.

Doubtful. *Malignant tumors of the penis.*—Registrants with a growth or ulcer on the penis suggestive of malignancy should not be accepted for general military service. When the registrant consents to operation, judgment shall be deferred until a microscopic study of the removed lesion is made. If the diagnosis is cancer, the registrant shall be rejected. If it is not cancer, he shall be accepted. When the registrant refuses operation he shall be placed in the group of temporary defects, section 187, S. S. R., for further observation, unless in the opinion of the Medical Advisory Board there is no question that the lesion is malignant, and the registrant shall then be rejected.

When the registrant furnishes a verified history that he has been operated on for cancer of the penis he shall be rejected if the entire penis has been removed by operation. When, however, sufficient of the penis remains not to interfere with the function of micturition, or not to be an unsightly deformity, the registrant shall be accepted, if there are no signs of recurrence and it is three years since the operation. Otherwise he shall be be rejected.

In cases of this kind try to get the microscopic section of the original tumor and submit it to two or more pathologists for reexamination, because not infrequently in young men the so-called malignant venereal wart has been removed under the diagnosis of cancer. Such warts are rarely, if ever, carcinoma. When the reexamination of such a section changes the diagnosis from cancer to that of a benign wart, the registrant shall be accepted for general military service.

Accept. *Varicocele.*—The physicians on the Local Board have been directed to accept registrants with varicoceles. Should cases of this kind be referred to the Medical Advisory Boards because of the large size of the varicocele, or because the registrant claims that he is incapacitated, the registrant shall be accepted for general military service, and operation shall only be advised pending receipt of orders to report for duty when in the judgment of the Medical Advisory Board it is distinctly indicated on account of the large size of the varicocele. Do not advise operation to relieve the patient of nervous symptoms which he may attribute to his varicocele.

Accept. *Hydrocele.*—Should registrants with large hydroceles be referred to the Medical Advisory Board, and when in its opinion operation is indicated because of its large size, the registrant may have this operation performed pending receipt of orders to report for duty; but hydrocele itself is not a cause for rejection.

Accept. *Testicle.*—The absence of one testicle is not a cause for rejection unless the registrant furnishes verified proof that the testicle was removed for malignant disease, and he should then be rejected. If possible, in cases of this kind, sections of the removed tumor should be obtained and submitted to two or more pathologists to verify the diagnosis.

Atrophy of one testicle does not disqualify for general military service.

Atrophy or loss of both testicles does not disqualify for general military service if the registrant is otherwise physically and mentally fit.

When there is enlargement of the testicle, apparently not due to hydrocele nor to gumma, the possibility of malignant tumor must be considered. The registrant should be placed in the deferred remediable group. (Group B).

In all cases of testicular enlargement, with or without hydrocele, make the Wassermann test. If positive, advise salvarsan.

Epididymitis.—This lesion, acute or chronic, is usually associated with gonorrhea. It may be a temporary result after operation for varicocele or inguinal hernia. The lesion itself does not disqualify. Accept.

A registrant with a chronic induration of the epididymis with no history or evidence of gonorrhea, no history of recent mumps, or recent operation for hernia or varicocele, should be examined with the greatest care for other signs of tuberculosis of the genito-urinary tract and tuberculosis elsewhere.

Tuberculosis of the genito-urinary tract disqualifies for all military service. Reject.

A registrant with such an induration of the epididymis and without evidence of tuberculosis elsewhere should be advised to have the area explored under novocaine—an operation which is the best thing for him. The indurated area should be removed and a microscopic section made. If tuberculosis is found, the registrant shall be disqualified for any military service.

When the registrant refuses this operation and is otherwise physically qualified, he shall be accepted for general military service.

Tuberculosis of the Genito-Urinary Organs.—In the majority of cases there will be a single or bilateral epididymitis, with or without abscess or sinus, small nodules along the vas defenrens, induration of the seminal vesicles and prostate, and a purulent cystitis. A registrant with such objective signs shall be rejected, even though the examination of the urine fails to reveal the tubercle bacilli. Reject.

Cystitis.—Registrants with recent or acute cystitis should be held as temporary defect, section 187, S. S. R.

Registrants with chronic or subacute cystitis without residual urine shall be accepted for general military

service and advised treatment by a competent urologist pending receipt of orders to report for duty.

Registrants with chronic cystitis with definite residual urine of a duration longer than two months, in which there is no evidence of stricture of urethra, should be carefully studied as to the cause, such as diseases of the central nervous system, obstruction at the neck of the bladder, and stone. If there is no stone in the bladder and no other remediable cause to be demonstrated, the registrant shall be rejected.

If a vesical calculus is found, the registrant should be placed in deferred remediable group (Group B).

Reject. *Bladder Tumors.*—Registrants who show at the cystoscopic examination benign or malignant tumors of the bladder or who give a history of operation for a malignant tumor of the bladder shall be rejected.

Registrants who give a history of the removal of a benign tumor of the bladder shall be accepted for general military service only when a cystoscopic examination shows no evidence of a recurrence of the tumor.

If the Medical Advisory Board is not prepared to perform cystoscopic examinations, and the concomitant cystitis is not of a degree to disqualify, the registrant should be accepted.

Kidney, pyelitis.—This is diagnosed only when the ureters are catheterized and the pus demonstrated to come from the kidney and not from the bladder.

Registrants with pyelitis and no evidence of any other serious condition of the kidney should be placed in the deferred remediable group (Group B).

Severe infections of the kidney, surgical kidney, whether associated with renal calculus or not, tuberculosis of the kidney, extreme degrees of hydronephrosis and all tumors of the kidney—that is, lesions for which the remedy is nephrectomy—and all registrants who have had one kidney removed or destroyed by any cause, should be rejected.

Renal Calculus.—When symptoms suggest and the X-ray shows a stone in the kidney and there are no definite objective findings of a serious injury to the kidney, the registrant shall be placed in the deferred remediable group (Group B).

Palpable or floating kidney is not of itself a cause for rejection.

Albuminuria.

Albumen and casts, with or without blood in the urine, found on repeated examination, should place the registrant in the group of temporary defects, Section 187, S. S. R. Chronic nephritis disqualifies for any military service, while acute transitory nephritis does not disqualify after all the symptoms have disappeared and repeated examinations of the urine are negative.

Transient albuminuria does not of itself disqualify for general military service, but these cases should be carefully studied, and examination temporarily delayed, section 187, S. S. R.

Persistent permanent albuminuria which does not disappear when the patient is at rest and on restricted diet, shall be rejected.

Stone in the *ureter* without complications should be placed in the deferred remediable group (Group B).

XVI. AFFECTIONS COMMON TO BOTH EXTREMITIES.

Regulations for Local Board. (Section 184 (n), S. S. R.)

Rejection.

Reject all diseases, injuries, and amputations which have destroyed the function of *both* lower limbs *or both* upper limbs.

Rejection. Acceptance.

Reject all registrants with an extensive disease of one joint associated with sinuses of long duration.

Accept all registrants who have no loss of function of both upper and lower extremities and no restriction of joint function.

Refer to the Medical Advisory Board all registrants with one good arm *and* one good lower extremity and all other doubtful cases.

Regulations for the Medical Advisory Board.

Accept for limited and special military service (Group C) registrants with one good arm and one good lower extremity providing he is able to perform and is performing some useful occupation; if not, reject (Group D).

GENERAL STATEMENTS IN REGARD TO AFFECTIONS OF BONES AND JOINTS.

Proven active tuberculosis of bone or joint shall reject the registrant from any military service.

The diagnosis of active tuberculosis of bone or joint shall rest upon the examination showing swelling, re-

striction of joint motion, tenderness and muscle spasm, and the evidence of bone destruction in the X-ray plate.

If the registrant gives a history of tuberculosis of bone or joint apparently healed with no evidence of active disease for at least 10 years, the acceptance of this registrant for general military service or for special or limited service shall depend upon the degree of loss of function in the involved joint and degree of deformity and disability.

If the period is less than 10 years the registrant shall be rejected.

Registrant suffering from a recent injury of bone or joint, with or without fracture or dislocation, shall be given a reasonable time for recovery before the final examination is made. Registrants confined to their house or the hospital or under ambulatory treatment for nontuberculous osteomyelitis or for any form of nontuberculous arthritis of one or more joints will be given a sreasonable time for convalescence for their final examination. Temporary defect, section 187, S. S. R.

NONTUBERCULOUS AFFECTIONS OF BONES AND JOINTS.

The decision as to acceptance or rejection for general or for special or limited military service for affections of the bones and joints of nontuberculous character shall depend upon the function of the involved portion of the extremity at the time of the examination and the presence or absence of a sinus or other distinct evidence of the existence of a still active process, and not upon the cause or nature of the previous disease.

Registrants giving a history of a compound fracture and who on examination reveal a sinus communicating with the seat of the fracture when the union is solid and function is good shall be accepted.

Registrants who give a history of a fracture which has been operated upon and fixed by a bone plate with screws shall be accepted if the bone union is solid, and the function is unimpaired.

Registrants presenting ununited fractures shall be placed in the Deferred Remedial Group (Group B), if in the opinion of the Medical Advisory Board the nonunion is remediable. If in the opinion of the Medical Advisory Board the condition is irremediable by operation or by treatment, they should be accepted for special or

limited military service (Group C), unless it is the opinion of the Medical Advisory Board that they should be rejcected.

Registrants who give a history of osteomyelitis and who on examination show evidence of this process apparently healed, but who have still one or more existing sinuses, shall be rejected for general military service or accepted for limited or special military service, according to the degree of the disability.

Accept as physically qualified for general military service registrants with bone tumors which do not interfere with joint function or in any way with the function of the extremity. Accept.

Bone tumors belonging to this class are single and multiple exostoses and healed benign bone cysts.

Accept as physically qualified for general military service registrants who give a history of an operation for a benign bone tumor and the function of whose extremity has not been impaired by this operation. Accept.

Bone tumors belonging to this class are exostoses, enchondroma, benign bone cysts, and the giant cell tumor.

Place in the deferred remediable group (Group B), registrants in which the examination and X-ray picture suggests a benign bone tumor remediable by operation without loss of function of the neighboring joint or the extremity.

Reject as physically deficient and not physically qualified for military service registrants who bring authentic data of an operation for a malignant bone tumor, irrespective of the result, and registrants in which the diagnosis from physical examination and X ray suggests a large probability of a malignant bone tumor. Reject.

Accept as physically qualified for special or limited military service (Group C), registrants who give a history of an operation for some benign bone tumor but the result of which operation has interfered with the function of the neighboring joint or the function of the extremity involved of a degree rendering the registrant unfit for general military service. Accept.

The so-called giant cell sarcoma shall be looked upon in these regulations as a benign bone tumor, provided the Medical Advisory Board is able to submit sections of the tumor to two competent pathologists who agree in the diagnosis of a benign bone tumor.

Traumatism, with and without fracture, and syphilis may give rise to an ossifying periosteal new growth which might be incorrectly diagnosed periosteal sarcoma. Cases of this kind should be studied with the X ray, the Wasserman test taken, and salvarsan employed as a therapeutic test.

A lesion of this kind rarely if ever interferes with function, and if sarcoma can be excluded the registrant should be accepted for general military service (Group A).

This form of benign, ossifying, periostitis is quite frequent, and the incorrect diagnosis of periosteal sarcoma has been made in a number of cases of this kind. For this reason the Medical Advisory Board is urged to examine these cases with the greatest care and defer judgment, placing the registrant temporarily in the group of temporary defects, section 187, S. S. R.

XVII. UPPER EXTREMITIES.

Registrants who have restriction of motion in one joint of the upper extremities—shoulder, elbow, or wrist—with no evidence of active disease of bone or joint, provided they present good function and weight-bearing power, shall be accepted for general military service when the limitation of active motion is not more than 25 per cent of the normal. If the restriction of motion is more than 25 per cent of normal, or when two or more joints are involved, irrespective of the degree of limitation, the registrants shall be accepted for special or limited military service (Group C), providing the Medical Advisory Board is of the opinion, after investigation, that they are capable of any service. If not, they should be rejected.

Disease of bone, healed, with some resulting deformity, shall be accepted in accordance with the degree of the restriction of the joint as above noted (25 per cent of normal motion). Muscle paralysis or contracture of tendon or nerves shall be accepted on the same basis, namely, in accordance to the degree of the restriction of the joint motion (25 per cent of the normal joint motion).

Regulations for the Local Board. (Section 184(o), S. S. R.)

Acceptance.

Hands.—Accept all registrants whose function of the wrist and fingers is not permanently impaired and who have not lost either a thumb or the index finger on the right hand, or two fingers on one hand.

Refer all other and doubtful cases to the Medical Advisory Board.

Regulations for the Medical Advisory Board.

Hands.—Registrants with defects or deformities of the hands not described in the regulations of the local board as within the standards of unconditional acceptance may be accepted for special or limited military service by the Medical Advisory Board with the following defects or deformities: Accept for Group C.

Loss of thumb and index finger.

Loss of two fingers on one hand.

Webbed fingers.

One or more partially stiff fingers, with or without contractures.

Total loss of fingers of one hand.

Deformities or defects from injury or disease.

Reject no registrant with disabling deformities of the hand or fingers, when in his present civil occupation he is able to pursue any occupation which would be useful in any occupation in special or limited military service. (Group C).

Accept for general military service (Group A), registrants with ganglion and other benign tumors of the hand or fingers.

XVIII. LOWER EXTREMITIES.

Regulations for Local Board. (Section 184(p), S. S. R.)

Accept all registrants with movable joints and no deformity which interferes with walking and weight-bearing power. Accept.

Accept registrants with varicose veins when not associated with edema and leg ulcer. Accept.

Accept all foot and ankle lesions if they do not interfere with the wearing of an ordinary shoe and with walking and weight-bearing power; hammer toe, hallux valgus, bunion, callosities, the different types of flat, club, and claw foot are to be accepted if they come within the above requirements. Accept.

Refer all doubtful and other cases to the Medical Advisory Board.

Reject no foot cases. Foot cases.

Regulations for the Medical Advisory Board.

Registrants who have restriction of motion of one joint of the lower extremities, hip, knee, or ankle, with no evidence of active disease of the bone or joint, shall be accepted for general military service when the limitation

of active motion is not more than 25 per cent of the normal. If the restriction of the motion is more than 25 per cent of the normal or when two or more joints are involved, irrespective of the degree of limitation, the registrant shall be accepted for special or limited military service (Group C), provided the Medical Advisory Board is of the opinion (after investigation) that they are capable of any service; if not, they shall be rejected.

Accept. Accept registrants for general military service with such deformities as slight coxavara, knock knee, bow leg, and deformity of the ankle after Potts fracture, provided there is no interference to the function of walking and weight bearing, as demonstrated by the examination and by the occupation in which the registrant is engaged at the time of examination.

Knee joint (so-called internal derangements of the knee).—Loose bodies, dislocation of semilunar, slipping patella, place in the deferred remediable group (Group B).

Busitis.—Registrants with benign tumors, extra articular, shall be accepted for general military service when not disabling. In the latter case place in the deferred remediable group (Group B).

Accept. **Foot.**—Accept for general military service all registrants with lesion of the feet and toes irrespective of present function, when, after examination it is of the opinion of the Medical Advisory Board that the lesion is remediable by treatment or by operation. If no member of the Medical Advisory Board is trained in orthopedic surgery the board shall accept all doubtful cases. Registrants with lesions or deformities of the foot totally disabling them for general military service, and, in the opinion of the Medical Advisory Board, irremediable by treatment or by operation, should be accepted for special or limited military service (Group C), or rejected on the basis of the examination taken in conjunction with the registrant's present occupation.

Limping and lameness, per se, are not a cause for rejection. The cause thereof must be the deciding factor.

Registrants presenting a shortening of the lower extremity of 1 inch or less is not, per se, a cause for rejection. Registrants presenting shortening of the lower extremity of more than 1 inch may be accepted and placed in Group C for special or limited military service.

XIX. HEIGHT, WEIGHT, AND CHEST MEASUREMENTS.

Regulations for the Local Board. (Section 184 (q) S. S. R.)

Registrants whose chest measurements do not come within the limits of the table and who have no disqualifying defect are referred to the Medical Advisory Board.

Accept above 78 inches.

Accept registrants above 78 inches in height when exceptionally well proportioned. Refer all other such cases to the Medical Advisory Board.

Reject less than 58 inches.

Reject registrants of less than 58 inches in height.

Refer to the Medical Advisory Board registrants whose height is more than 58 inches and less than 60.

Reject less than 100 pounds.

Reject registrants whose weight is less than 100 pounds unless it is plainly due to some recent illness and otherwise the registrants have no disqualifying defect.

Registrants whose weight is more than 100 pounds and less than 114 pounds and who have no other disqualifying defect are to be referred to the Medical Advisory Board.

Underweight for height.

Registrants under weight in proportion to their height (see table), unless it is plainly due to some temporary cause, are referred to the Medical Advisory Board. When this underweight can reasonably be explained and the registrant otherwise is physically fit, *accept*.

Overweight for height.

Registrants with overweight are to be *accepted* unless the obesity interferes with normal physical activity. Refer all doubtful cases to the Medical Advisory Board.

The following weights and measurements should be taken with the greatest care:

A. Standard accepted measurements.				B. The following variations from the standard shown in column A are permissible when the applicant is active, has firm muscles, and is evidently vigorous and healthy.			
Height.	Weight.	Chest measurement.		Height.	Weight.	Chest measurement.	
		At expiration.	Mobility.			At expiration.	Mobility.
Inches.	*Pounds.*	*Inches.*	*Inches.*	*Inches.*	*Pounds.*	*Inches.*	*Inches.*
60	120	31	2	60	114	30	2
61	120	31	2	61	114	30	2
62	120	31	2	62	114	30	2
63	124	31	2	63	116	30	2
64	128	32	2	64	120	30	2
65	130	32	2	65	120	30	2
66	132	32½	2	66	120	30¼	2
67	134	33	2	67	120	30½	2
68	141	33¼	2½	68	121	30¾	2
69	148	33½	2½	69	124	31	2
70	155	34	2½	70	128	31¼	2
71	162	34¼	2½	71	133	31¾	2
72	169	34¾	3	72	138	32¼	2½
73	176	35¼	3	73	143	32¾	2½
74	183	36¼	3	74	148	33½	2½
75	190	36¾	3¼	75	155	34¼	2¾
76	197	37¼	3½	76	161	34¾	2¾
77	204	37½	3¾	77	168	35¼	3
78	211	38¼	4	78	175	35¾	3

Directions for taking height.—Use a board at least 2 inches wide by 80 inches long, placed vertically, and carefully graduated to $\frac{1}{4}$ inch, between 60 inches and 78 inches from floor. Obtain height by placing vertically in firm contact with the top of head and against the measuring rod an accurately squared board about 6 by 6 by 2 inches—best permanently attached to graduated board, by long cord. The recruit should stand erect with back to the graduated board, eyes straight to the front.

Reject. Registrants whose height is less than 60 inches shall be rejected from general military service, but if they are

Accept. otherwise physically and mentally fit they may be accepted for special or limited military service.

Registrants who weigh less than 114 pounds shall not be accepted for general military service unless in the opinion of the Medical Advisory Board it is a remediable defect.

Registrants who weigh more than 120 pounds, but less than the prescribed weight for the height indicated in the table of measurements of height and weight, may be accepted when in the opinion of the Advisory Board the defect is remediable by camp life. If, however, in the opinion of the Advisory Board the defect is not remediable these registrants, if otherwise physically and mentally fit, shall be accepted for special and limited military service. (Group C.)

A registrant who appears not to be able to expand the chest 2, $2\frac{1}{2}$, or 3 inches, respectively, as per table should be examined especially to ascertain if the failure of adequate chest expansion is due to ignorance and lack of practice. If in the opinion of the Advisory Board the lack of the prescribed expansion is remediable by camp life and the registrant is otherwise physically and mentally fit he shall be accepted. If, however, in the opinion of the Advisory Board the defect of expansion is not remediable and the registrant is otherwise physically and mentally fit he shall be accepted for special and limited military service. (Group C.)

A registrant whose height is 78 inches or more should be carefully studied. If he is well proportioned and not over or under weight and otherwise physically fit with no signs of giantism or acromeglia he should be accepted.

XX. DENTAL REQUIREMENTS.

Regulations for the Local Board. (Section 185, S. S. R.)

Acceptance.

Accept registrants who have three serviceable natural masticating teeth above and three below opposing and three serviceable natural incisors above and three below opposing. All these teeth must be so opposed as to serve the purpose of incision and mastication. Therefore, the registrant shall have a minimum total of six masticating teeth and a minimum total of six incisor teeth.

Dental treatment.

The needed dental treatment will be performed at the cantonment. However, if time permits, a registrant, if he prefers, may have the necessary work done at home previous to his induction into military service.

DEFINITIONS.

Masticating teeth.

(*a*) The term "masticating teeth" includes molar and bicuspid teeth, and the term "incisors" includes incisor and cuspid teeth.

Natural teeth.

(*b*) A natural tooth which is carious (one with a cavity), which can be restored by filling, is to be considered as a natural serviceable tooth.

Bridge work.

(*c*) Teeth which are restored by crowns or dummies attached to fixed bridge work, when well placed, shall be considered as serviceable natural teeth, when the history and the appearance of these teeth is such as to clearly warrant such assumption.

Physical examination.

Infected teeth.

(*d*) A tooth is not to be considered a serviceable natural tooth when it is involved with excessively deep pyorrhea pockets, or when its root end is involved with a known infection that has or has not an evacuating sinus discharging through the mucous membrane or skin.

Refer all other cases to the Medical Advisory Board.

No registrants can be rejected on account of teeth defects. (C. S. S. R. No. 3, Jan. 28, 1918.)

Regulations for Medical Advisory Board.

The dentist on the Medical Advisory Board shall reexamine the teeth of all registrants referred by the Local Board.

When this examination demonstrates that the registrant has the number and character of teeth placing him within the standards of unconditional acceptance as clearly defined in the regulations to the Local Board, section 185, S. S. R., the registrant shall be accepted for general military service.

All other registrants who do not come within the standards of unconditional acceptance of dental requirements shall be accepted for special or limited military service (Group C).

URGENT SUGGESTION FOR THE BENEFIT OF REGISTRANTS ACCEPTED FOR GENERAL MILITARY SERVICE.

The dentist on the Medical Advisory Board is urged to consult and cooperate with the dentist on the Local Board to devise ways and means of persuading registrants accepted for general military service to have urgent dental work done pending receipt of orders to report for duty.

All hopelessly diseased teeth should be extracted. Chronic focal infections involving the teeth and jaws should be eradicated. If this is done before the registrant reports for duty at the cantonment, the necessary plate work can be more quickly placed at the cantonment, and even more important the registrant will be protected from systemic complications which are liable to occur when the individual is placed under the strain of military training.

XXI. GENERAL.

Regulations for the Local Board. (Section 184 (r), S. S. R.)

Tuberculosis. Physical examination. Refer to the Medical Advisory Board all registrants who, from their history and after their complete examination, suggest the possibility of tuberculosis in some part of the body.

Anemia. Refer to the Medical Advisory Board all cases who, at the general examination, seem to have a marked anemia even though otherwise physically fit.

Debility. Refer to the Medical Advisory Board all cases who, after examination, impress you as in an extreme state of debility, even if the other examinations are negative.

Tumor. Refer to the Medical Advisory Board all registrants who give a history of an operation or any other treatment for a malignant tumor, even if there is no evidence of recurrence, and all registrants who, at examination, have any tumor or ulcer suspicious of *malignancy*.

Confined and incapacitated. Registrants confined to their homes, hospitals, or institutions who claim to be suffering from hopeless totally incapacitating diseases should be thoroughly investigated by the Local Board in consultation, if necessary, with the Medical Advisory Board.

Some of these registrants may have remediable defects. In others the claim may be incorrect. (C. S. S. R. No. 3, Jan. 28, 1918.)

Regulations for the Medical Advisory Board.

Anemia.

The registrant who upon examination is found to suffer from anemia should be examined carefully to ascertain the cause if that is possible. If the anemia is remediable by removal of a cause (hemorrhoids, intestinal parasites, etc.) or by treatment or by the salutary effects of camp life, he should be accepted for general military service. If the anemia is not remediable and is a cause of general debility, he should be rejected.

Debility.

The registrant who on examination is found to suffer from a general debility evidenced by lethargy and flabby muscles should be further examined for tuberculosis and other debility-producing conditions. If in the opinion of the Advisory Board the debility is due to a remediable condition but not to tuberculosis by treatment and camp life and he is otherwise physically and mentally fit he shall be accepted for general military service.

Registrants confined to their homes, hospitals, and institutions for the care of the sick who claim to suffer from totally incapacitating diseases should be investigated by the Advisory Board as consultants to the Local Boards.

XXII. NOTES ON MALINGERING.

Malingerers may be divided into three general groups—

(1) Real malingerers with nothing the matter with them, who injure themselves, or make allegations respecting diseases or such conditions as drug taking, or who counterfeit disease with full consciousness and responsibility; all for the purpose of evading military service. Many of these have been coached. A small but important group.

(2) Psychoneurotics, who are natural complainers and try to get out of every disagreeable thing in life. Perhaps only partially conscious of the nature of the seriousness of what they do and only partly responsible. In many the motives are not persistent and many can be made into good soldiers.

(3) Confirmed psychoneurotics with long history of nervous breakdowns and illnesses who behave like class (2) but more persistently, and from whom not much can be expected in the way of reconstruction. The important question to decide concerning groups (2) and (3) is not one

of responsibility, but as to whether there is probability of the man being turned into a good soldier.

CAUSES AND MOTIVES OF MALINGERING.

These must be clearly understood in order that medical examiners may be on the alert for deception. The foreign born, and especially Jews, are more apt to malinger than the native born; eastern Europeans more than western Europeans. There are two main types, country and city. The country types are foolish and clumsy, often grotesque, come for examination provided with recently purchased apparatus, such as spectacles, crutches, trusses, etc., complain of pain in the back, kidney trouble, and, in fact, all the diseases which are the subjects of quack advertisements. The city types are familiar with the jargon of city clinics, and make their complaints less specific. All malingerers are generally timid, which makes them fearful of entering the Army. Mercenary motives can be traced in many, for men hate to give up good jobs. Farmers are disinclined to give up agriculture for military duty, and all persons whose lives have created no sense of nationalism wish service. But the largest number of malingerers are recruited from classes who take the same attitude about military service as they take with everything in life which requires orderliness, obedience, and industry, such as truants, vagrants, wife deserters, etc. Some are induced to malinger for the reason that they have friends or relatives in the armies of the central powers. Practically the only motive that comes to the attention of advisory boards is to evade service. Few drafted men malinger for the purpose of obtaining service.

GENERAL DETECTION.

The surest means of detecting malingering is a thorough understanding by the examiner of the types of people who actually do it—and the way they behave. It is only in the feigned diseases of the eye and ear that special tests are required. Observation in hospital is necessary in difficult cases. The vast bulk of malingerers are those who exaggerate some actual defect, and the problem for the medical examiner is to decide whether the defect complained of is sufficient cause for rejection for service. Persons of intelligence and education have more difficulty in deceiving, as they are bound to express themselves

freely. If they are reticent in these matters they arouse suspicion by their reticence. Those who talk freely may be counted on to say things at variance with the existence of the disease of which they complain.

Even if the suspicion of the examiner is aroused at the outset his attitude should be that of a physician rather than of a court officer. He should obtain information regarding the recruit's family relationships, his progress at school, his industrial career, truancy, reasons for choice of career, earning power, domestic relations. It is important to find out the man's views concerning his own health. Many boys now in the draft have been fed up on quack advertisements, have been coddled at home and led to believe that they were delicate, have been treated for months or years by unscrupulous physicians for diseases which they did not have and really have come to believe that they can not stand the strain of military service. Explanation in these matters is often sufficient for a recruit to abandon his claim of illness and to proceed to his duty with cheerfulness. In other cases brusque statements that the defect complained of is not, under any circumstances, a disqualification brings a prompt change of attitude. Suggestions of anaesthetics for diagnostic purposes, operations, etc., often cause candidate to abandon his claims. Throughout, the attention of the person under examination is to be distracted so that while he is being examined for one thing, he believes he is being examined for something else.

DISTURBANCES OF VISION AND HEARING.

(See Pars. VII and VIII.)

GENERAL MEDICAL.—Among the general medical conditions which must be considered under the heading of malingering are indefinite illnesses which clear up rapidly under hospital treatment. Sore throat, general pains, general disability, and the like fall naturally into this class. Cardiac conditions are frequently complained of, chiefly as shortness of breath, feelings of suffocation, palpitation, suffocating attacks, pain around the heart. Tuberculosis is claimed more frequently than other pulmonary conditions. Gastric troubles are frequently complained of and are usually fortified with a long history of "stomach trouble" usually backed up with

statements to prove how long and how unsuccessfully the patients have been treated for the complaint. Sometimes a history of gastric ulcer is given in detail. Abdominal conditions refer chiefly to pain associated with adhesions due to old operative conditions. Acute appendicitis has been feigned in a number of instances.

DETECTION AND MANAGEMENT.

The detection and management of medical cases depends upon the absence of positive findings in one who presents the general characteristics of the malingerer. There is especial need for the physical examination to be thorough in this group. Some of the cardiac cases at first regarded as malingerers were pronounced later by the cardiovascular board to have mitral stenosis, and similarly proper tests have shown the existence of gastric ulcer in cases which were under suspicion of fraud. The estimation of the reality of rheumatic pains is always a difficult matter. Proposal of operation has often proved a valuable aid in the clearing up of members of this group, many men after refusing it having gone meekly back to duty in apparently good health.

General Surgical.—Under this general heading are included various surgical conditions, old scars, and injuries of the bones, fractures, and orthopedic conditions. The following distribution of diagnoses, from a base hospital surgical service, is characteristic. Numbers of the patients are reported as remaining on the surgical service many days refusing operation, as is to be expected of the malingerer.

Gunshot wound, possibly inflicted with object of discharge from service, 4 cases.

Chopped fingers, possibly inflicted with object of discharge from service, 2 cases.

Amputated fingers (hand lain on railway track), with object of discharge from service, 1 case.

Medical (pain in stomach simulating ulcer), with object of discharge from service, 4 cases.

Medical (pain over gall bladder or indefinite), with object of discharge from service, 6 cases.

Rheumatism, multiple or single arthritis, with object of discharge from service, 20 cases.

Painful operation scars, with object of discharge from service, 3 cases.

Post-operative adhesions, with object of discharge from service, 10 cases.

Varicocele, with object of discharge from service, 20 cases.

Hernia, mostly inguinal, with object of discharge from service, 20 cases.

Hernia, post operative, with object of discharge from service, 4 cases.

Flat feet, with object of discharge from service, 60 cases.

Old fractures of legs, feet, and arms, with object of discharge from service, 15 cases.

Multiple small painless lipomata, with object of discharge from service, 1 case.

Backache, with object of discharge from service, 20 cases.

Infected foot (mild cases refusing operation), with object of discharge from service, 2 cases.

As indicated in the above table, flat feet are among the most frequent complaints of this class. These are extremely troublesome cases. Many men get discharged for this disability, and in the absence of pronounced abnormalities it is very difficult to determine that they are malingerers. It should be remembered that many men, such as guides and some races have flat feet and still can walk long distance without pain. Stiff joints are frequently complained of, usually as having taken their origin from a fracture or other injury sustained a long time previously. In the absence of palpable signs of joint injury and with negative X-ray findings the mobility of these joints can generally be demonstrated.

Artificially created conditions.—Men shoot or cut off their fingers or toes, practically always on the right side, to get disqualified from service. Sometimes they put their hands under cars for this purpose. Many men have their teeth pulled out. Retention of urine is simulated. Egg albumen is injected into the bladder or put in urine. Glucose is added to urine. Digitalis, thyroid gland preparations, and strophanthus are taken to cause disturbance of the heart and cantharides to cause albuminuria. The skin is irritated by various irritating substances which are also injected under it to create abscesses. Various substances are taken to bring about purging. An appearance of haemoptosis may be produced by adding blood, either human or that of animals, to the sputa. Sometimes merely coloring matter is added. Those who can vomit voluntarily, what they swallow, use the same means to create the appearance of haematemesis. Similarly coloring matters can be added to the stools. Mechanical and chemical irritations are made use of to cause inflammation about practically all the body orifices. Jaundice is produced by taking picric acid, and crutches, spectacles, trusses, strappings, etc., are made use of to create the appearance of disability.

DETECTION.—Wounds are rarely self-inflicted when witnesses are present, consequently it is almost impossible to be certain of the motive behind these. The artificial jaundice is to be recognized by the demonstration of picric acid in the urine.

BED WETTING.—A frequent complaint among candidates for military service but not a cause for rejection.

NERVOUS AND MENTAL.

INSANITY.—Rarely feigned by recruits and then of extremely silly, foolish type. In cases of doubt, hospital observation is necessary and verified past records. Mental defects frequently feigned, especially by illiterates and the foreign tongued. These should be accepted. Organic diseases of the central nervous system can not be simulated.

PAIN AND HYPERAESTHESIA.—The most frequent of all complaints. History inconsistent, ordinary traces of suffering absent. Absence of other symptoms usually accompanying types of pain complained of. Absence of painful localized pains. Note behavior of patient when unobserved.

ANAESTHESIA.—Not a cause of rejection. Complaint of anaesthesia itself creates a suspicion of malingering, as most patients with anaesthesia are ignorant of it. Human pincushions do not always jump when taken off their guard.

EPILEPSY.—Men who have sustained head injury are very apt to claim fits. These complaints may be in reference to grand mal or petit mal. Petit mal attacks are spoken of as fainting attacks. In grand mal attacks there is loss of pupil response to light, knee jerks are lost and the Babinsky reflex may be present. Get verified histories.

HYSTERIA.—Not feigned in itself, but its existence creates confusion as to malingering. The question to be decided is whether the recruit is too seriously affected with the neurosis to be useful as a soldier. Often, even when the physical symptoms are most pronounced (paralysis), cure is still possible.

These registrants should be accepted for general military service.

The ordinary stigmata of hysteria should not of themselves be causes for rejection.

STIFF BACKS.—Stiff backs have been a frequent symptom of hysteria in the present mobilization among selected men. In cases of this kind organic disease of the vertebræ can and should be excluded, if necessary, by the X ray. In some cases moral suasion may suffice to demonstrate the stiff back is hysterical. Anesthesia can not be employed without consent of the registrant.

XXIII. DEGREE OF DEFICIENCY FOR DISQUALIFICATION.

Regulations for the Local Board. (Section 186, S. S. R.)

Doubtful cases.

In these regulations the standards for unconditional rejection which places the registrant in the class physically deficient and not physically qualified for military service are clearly defined. When the Local Board is in any doubt, the registrant should be referred to the Medical Advisory Board. The attention of Local Boards and examining physicians is called to paragraph 3 of Section 123, page 64, after the side heading, *Where Held Disqualified*, which is as follows:

If the registrant is held to be physically disqualified by the examining physician, the Local Board shall, unless it decides by unanimous vote that the disqualification is so obvious as to leave no room for reasonable doubt, send the registrant before such Medical Advisory Board in the manner just provided.

This shows that there must be a unanimous vote of the Local Board to disqualify the registrant and the disqualification must be so obvious as to leave no room for reasonable doubt.

The object of this ruling has already been given. (C. S. S. R. No. 3, Jan. 28, 1918.)

Regulations for the Medical Advisory Board.

The duty of the Advisory Board is plainly indicated in the examination and report to the Local Board upon the registrants referred to in Section 186 in the regulations for Local Boards.

XXIV. TEMPORARY DEFECTS.

Regulations for the Local Board. (Section 187, S. S. R.)

Postponement of examination.

Registrants confined to their homes, or hospitals, or who present themselves with some temporary defect the result of an acute disease, injury, or operation, or who

are waiting for operation, should be granted a reasonable delay for completing the physical examination.

Investigation. All of these cases should be thoroughly investigated by the phycician on the Local Board.

Physical examination. Registrants with contagious, communicable, reportable diseases should *not* be ordered before the Local Board for examination until they are discharged by the boards of health.

Contagious diseases. Diphtheria.

Registrants recovering from diphtheria should not be ordered to the cantonments until two negative cultures have been obtained from the throat. In localities where there is no provision for this bacteriological work, consult the Medical Advisory Board. (C. S. S. R. No. 3, Jan. 28, 1918.)

Regulations for the Medical Advisory Board.

Registrants referred to the Advisory Board who present themselves with some temporary defect, the result of a recent acute disease, injury, or operation, the Local Board should be advised to grant a reasonable time for recovery before the final examination by the Medical Advisory Board is made.

Throat cultures. When Local or Advisory Boards can not command the facilities at the hospital headquarters for making throat cultures of registrants recovering from an attack of diphtheria as directed in section 187 in the Regulations for Local Boards, the cultures from the throats of such registrants may be sent by mail to the Laboratories of the United States Public Health Service. When possible Municipal and State Health Laboratories should be utilized in the same way.

The Medical Advisory Board may employ section 187, S. S. R., Temporary Defects, when they desire, to grant the registrant a reasonable delay for completing the physical examination when it is difficult or impossible to come to a definite conclusion when the registrant first presents himself to the Medical Advisory Board. Instances of this kind are clearly defined in paragraphs III to XVIII in these regulations to the Medical Advisory Board.

Medical Advisory Boards in those districts in which the registrants must be sent to them from a distance, should suggest to their Local Boards to hold registrants under section 187, S. S. R., for a reasonable time and not to send them to the Medical Advisory Board until the examination can be completed within at most three days.

If possible, the examination should always be completed within one day.

XXV. SPECIAL AND LIMITED MILITARY SERVICE.

Regulations for the Local Board. (Section 188, S. S. R.)

Referred to Medical Advisory Boards.

In view of the importance of a thorough investigation and classification of registrants belonging to this group, Local Boards are required to refer all of such registrants to the Medical Advisory Board.

The physician on the Local Board is urged to consult with the Medical Advisory Board about this group and familiarize himself with the specific regulations and information soon to be given to the Medical Advisory Board concerning special and limited military service. (C. S. S. R. No. 3, Jan. 28, 1918.)

XXVI. APPENDIX.

RULES OF PROCEDURE FOR MEDICAL ADVISORY BOARDS AND IMPORTANT SECTIONS OF SELECTIVE SERVICE REGULATIONS RELATING THERETO.

RULES OF PROCEDURE.

1. Read carefully the SELECTIVE SERVICE REGULATIONS (S. S. R.), particularly the following sections: 25, 29, 43 (d), 44, 46, 122 to 128½, 137, 141, 182 to 188, 197, 198, 200, 201, 203, 204, 208 and 215. For ready reference all of these sections are reprinted in this appendix with the exception of sections 44 and 128½ which are printed in the Preliminary Statement of this Manual, and except sections 182 to 188 inclusive, "Physical Examination," (as amended January 28, 1918, and issued by the Provost Marshal General as "Changes No. 3" in a separate pamphlet), all of which are reprinted, at the proper places, in this Manual.

2. Medical Advisory Boards shall consist of three or more physicians. The number of Medical Advisory Boards and the membership of existing boards may be increased as necessity may indicate. (See Section 29, S. S. R., printed below.) When a Medical Advisory Board believes that other boards should be created, or additional members added to existing boards, it should recommend the same to the Governor.

3. Each board should select one member as chairman, one as vice chairman, and one as secretary. Additional vice chairmen may be selected.

4. Request to the Governor for authority to employ clerical assistance and incur other expenses should be made only when absolutely necessary. Do not incur any expense until authorized by the Governor. See Preliminary Statement in this Manual and see also Sections 43 (d), 198, 204, and 208, S. S. R., printed below. Stationery will be supplied by The Adjutant General.

5. No communications concerning the business of Medical Advisory Boards should be addressed to any Department or official in Washington. Except for their communications with Local Boards Medical Advisory Boards must address all official communications of every character, whether reports, recommendations, or requests for instructions or for interpretations to the Adjutant General of the State, who will either respond thereto or transmit the same to the proper authority. See Preliminary Statement in this Manual and also Section 25, S. S. R., printed below.

6. Select a place as headquarters of the Board where sessions may be held and physical examinations conducted. Select preferably a hospital or similar institution, where proper and careful examinations can be made. It ought not to be necessary to pay rental for such headquarters; but in the event that no free quarters can be obtained, application must be made through the Adjutant General of the State to the Governor for authority to incur expense for rent. All physical examinations and every part thereof should be conducted at headquarters of the board, unless it should be necessary to resort to some other place for the use of apparatus which is not otherwise available. See Preliminary Statement in this Manual. Sessions of the board should be held at stated hours and as frequently as necessity demands—daily, if necessary.

7. A majority of the board will constitute a quorum, except in cases of boards consisting of ten or more members, in which cases five members shall constitute a quorum. The board shall decide all disputed questions by vote. The chairman need not vote except to break a tie.

8. It shall not be necessary for all or a majority of a board to be present at or participate in the examination of a registrant, but one or more members may be ap-

pointed as a subcommittee to make an examination and shall report to the board, who may pass on the report or may make or require a further examination.

9. If clerks are employed they are to be on duty at place of meeting daily, except Sundays and legal holidays, from 9 a. m. to 5 p. m., and shall keep all records and conduct all correspondence under the direction of the board.

10. Any member of the board can sign Form 1010, reporting the result of physical examination by the Medical Advisory Board, designating the signer as follows: "Chairman," "vice chairman," "secretary," or "member."

11. Form 1010 when completed by the Medical Advisory Board will be returned in triplicate to the Local Board by which issued. If registrant has been examined at the request of The Adjutant General, Form 1010 when completed by the Medical Advisory Board shall be returned in triplicate to The Adjutant General. (See section 137 printed below.)

12. No permanent record is required to be kept by Medical Advisory Boards except a minute book and a list of registrants whose examination is temporarily delayed on account of temporary defects, as provided in this Manual. The Medical Advisory Board shall keep a minute book, using the following or substantially equivalent form, which is not supplied but must be written or typewritten, and kept in the possession of the board until order from the Provost Marshal General.

Date of meeting ..... Convened ..... M. Adjourned ..... M.

Present (members of board).	Arrived.	Left.
.....	.....	.....
.....	.....	.....
.....	.....	.....
.....	.....	.....
.....	.....	.....

Business Transacted.

Number of cases referred by the local board .....
Number finally acted on .....
Number of cases referred by registrant or Appeal Agent .....
Number finally acted on .....
Number of cases referred by The Adjutant General.....
Number finally acted on .....
Number of cases transferred from Local Boards .....
Number finally acted on .....

IMPORTANT SECTIONS OF SELECTIVE SERVICE REGULATIONS RELATING TO LEGAL ADVISORY BOARDS.

The following are the important sections of the SELECTIVE SERVICE REGULATIONS relating to physical examinations, Medical Advisory Boards, and procedure of the latter and of Local Boards. Sections 44, 128½, and 182 to 188, inclusive, as amended January 28, 1918, are not reprinted at this place for the reason that they already appear at length in this manual.

Section 25. Correspondence rules of the Office of the Provost Marshal General.

Rule A. Except as specifically provided in these Regulations, all communications intended for the Provost Marshal General concerning the execution of the Selective Service Law within a State emanating from individuals within the State or from Local and District Boards or other officials engaged within any State in the execution of the Selective Service Law **must be directed to the Adjutant General of the State for reference to the Provost Marshal General.** Correspondence sent in violation of this rule to the Office of the Provost Marshal General will be returned to the writer.

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Section 29. Governor to District State and Appoint Medical Advisory Boards.

Each State shall be carefully districted with due regard to communication and hospital facilities for the erection of a number of Medical Advisory Boards computed with a view to the equitable and practical distribution of the work of reexamination as provided herein and to the convenience of registrants and economy to the Government in sending registrants before such boards.

To assist the Governor in this work, a member of the Officers' Reserve Corps of the Medical Department will be ordered to active duty to report to the Governor for a sufficient time to accomplish this organization. The American Medical Association and the Medical Section of of the Council of National Defense have also offered their services to Governors in accomplishing this purpose. Members of Medical Advisory Boards will be nominated by the Governor and appointed by the President in accordance with instructions to be hereafter communicated to the Governors.

Section 43. Clerical assistance for State Headquarters and for District, Local, and Medical Advisory Boards.

When authorized by the Governor, as prescribed in Sec. 198 hereof, there may be engaged and compensated at the rates of pay prescribed in this section clerical assistance as follows:

* * * * *

(*d*) For Medical Advisory Boards:

1. One Chief Clerk.
2. One additional clerk.

The rate of compensation for a chief clerk shall not exceed the rate paid for similar service under local law, in no case to exceed $100 per month.

The rate of compensation for additional clerks shall not exceed the rate paid for similar service under local law, in no case to exceed, for not more than one additional clerk of any District, Local, or Medical Advisory Board, $80 per month; for all other clerks in addition to the chief clerk and one additional clerk, $60 per month.

Section 46. Duties of lawyers and physicians generally.

The selection and classification of men for military service is an undertaking that should be regarded as a systematized effort of the citizenry of the whole Nation organized and compacted to meet the present emergency. Every citizen has a duty to give his best endeavor to the success of this undertaking according to his qualifications and talents. All lawyers and physicians should regard it as their duty to identify themselves with the Advisory Boards provided for in sections 44 and 45, and freely and without compensation to give their best service to the Nation. It is inconsistent with this duty for lawyers to seek clients for the purpose of urging and advocating individual cases in any other way than as disinterested and impartial assistants of the Selective Service System.

Physicians will render a most valuable assistance by giving their services to Local Boards and to the Medical Advisory Boards provided in section 44 hereof.

Section 122. Physical examination.

Beginning on such date or dates as the Provost Marshal General shall hereafter fix for the beginning of the physical examination of all or any number or proportion of registrants, and after a registrant has been placed in Class I by a District Board (regardless of any appeal to the President in his case) or, if no appeal or claim is made before the District Board, then after the lapsing of

time for appeal from the placing of the registrant in Class I by the Local Board, the Local Board shall mail to the last known address of any registrant placed in Class I a notice (Form 1009) to appear for physical examination at a time and place to be designated in said notice (which time shall be five days from the date of the mailing of the notice), and shall enter the date of mailing of said notice in Column 19 of the Classification List.

Upon appearance of the registrant he shall be examined as provided in Part VIII hereof, and the date of his examination shall be entered in column 20 of the Classification List. The examining physician shall immediately enter his report and recommendation in triplicate on the report of physical examination (Form 1010), shall then and there inform the registrant of his conclusion as to whether the registrant is qualified or disqualified for general military service or qualified for limited military service in some specified capacity, and shall forthwith submit his report to the Local Board.

If the registrant is not satisfied with such conclusion, he shall then and there record, in the place provided on Form 1010, a request to be sent before a Medical Advisory Board. Failure to make this request on the day the registrant is examined and informed of the examining physician's conclusion shall foreclose the right of the registrant to appeal the finding of the Local Board on the physical qualification of the registrant.

The same procedure as to physical examination provided in these regulations for registrants in Class I shall also apply to all registrants who have been placed in a class more deferred than Class I, so soon as the immediately preceding or earlier class has been exhausted by calls into the military service and not before, except as provided in sections 128, 149, and 150.

NOTE.—Whether the examining physician of the Local Board is in doubt or not as to the physical qualification of a registrant for military service he shall nevertheless definitely report the registrant either as qualified or disqualified, and if he is in doubt as to such qualification or disqualification he may request to have the registrant sent before a Medical Advisory Board as prescribed in section 123.

Section 123. Sending doubtful cases to a Medical Advisory Board.

If the examining physician is in doubt as to whether the registrant is to be held for military service, or if the examining physician finds the registrant to be qualified for

military service and either the Government Appeal Agent, the registrant, or two members of the Local Board, are dissatisfied with such finding, such examining physician, Government Appeal Agent, members of the Local Board, or registrant may apply to the Local Board to have the registrant sent before the nearest Medical Advisory Board (provided in sections 29 and 44 hereof) for an exhaustive reexamination. Such application shall be made by entering it in the place provided in Form 1010. Thereupon the Local Board shall, unless it decides by unanimous vote that the case is one in which there is no room for reasonable doubt, immediately send the registrant before such Medical Advisory Board, forwarding to the Medical Advisory Board the examining physician's report (Form 1010) in triplicate and, where necessary, and when the registrant is not sent at his own request, furnishing the registrant with transportation and meal and lodging tickets for the time during which he will be before such Medical Advisory Board, in no case to exceed three days.

If the registrant is held to be physically disqualified by the examining physician, the Local Board shall, unless it decides by unanimous vote that the disqualification is so obvious as to leave no room for reasonable doubt, send the registrant before such Medical Advisory Board in the manner just provided.

Upon reference of a case from a Local Board as just provided, the Medical Advisory Board shall examine the registrant, record its findings in triplicate on Form 1010, and return all three copies of Form 1010 to the Local Board, with the conclusion and recommendation in the case.

Section 124. Finding by Local Board as to physical qualification.

Upon receipt of the report and recommendation of the Medical Advisory Board as provided in section 123, or, if the case has not been sent to the Medical Advisory Board, then upon the receipt of the report of the examining physician, the Local Board shall make its decision as to the physical qualification of the registrant. If the registrant is found physically disqualified for general military service, the Local Board shall cancel the cross mark (×) or cipher (0) which has already been entered in a classification column by drawing a red-ink line through such cross mark or cipher and shall enter the

classification of the registrant in Class V, column 12. If the registrant is found, in accordance with section 122 hereof, to be physically disqualified for general military service, but qualified to perform special and limited military service, his place in the classification column shall not be changed, but the Local Board shall, with red ink, inscribe a bold circle around the cross mark (×) or cipher (0) in such classification column. (See Sec. 188, Part VIII.)

While men found disqualified for general military service but qualified for special and limited military service are not placed in Class V, they are subject to induction into military service only when a special or specific call for men disqualified for general military service and qualified for special military service only is made.

If the finding of the Local Board is not in accord with the recommendation of the Medical Advisory Board, the Local Board shall make a special report to the District Board of its reason for rejecting the recommendation of the Medical Advisory Board.

The Local Board shall, on the day of its decision as to the physical qualification of any registrant, mail to such registrant a notice (Form 1011) of the result of such decision and shall enter the date of such mailing in column 21 of the Classification List (Form 1000).

Section 125. Appeal from finding of Local Board as to physical qualifications.

Within five days after the date of the notice prescribed in section 124 any registrant may make a claim of appeal to the District Board from the finding of the Local Board as to his physical qualification for military service. Claim of appeal shall be made by entering the claim in the place provided for that purpose on all three copies of the physical examination report (Form 1010). No registrant may make a claim of appeal unless, upon being notified of the examining physician's finding as to his physical qualification, as prescribed in section 122, and before final decision by the Local Board, such registrant shall have entered an application to be sent before a Medical Advisory Board, as provided in section 122. The Government Appeal Agent may make a claim of appeal on behalf of the United States at any time, but ordinarily he shall not do so when the decision of the Local Board follows the rec-

ommendation of the Medical Advisory Board. **He shall always do so when such is not the case.**

Immediately upon filing of an appeal from the decision of the Local Board as to physical qualification, the Local Board shall transmit to the District Board all three copies of the record of physical examination (Form 1010) in the case, together with any additional evidence as to physical qualification which may have been submitted to the Local Board, and shall enter the date of forwarding such record in column 22 of the Classification List and in the place provided on the Cover Sheet.

Section 126. Action by District Board upon appeal as to physical qualification.

In considering a case appealed on the ground of physical qualification, the District Board shall neither conduct any new physical examination nor shall it receive or consider any evidence which was not considered by the Local Board, but shall, upon consideration of the record sent to it as prescribed in section 125, either affirm, modify, or reverse the decision of the Local Board and promptly enter its finding on all three copies of Form 1010, and immediately return the same to the Local Board.

NOTE.—Attention of District Boards is invited to the fact that registrants appealing the result of their physical examination have already been twice examined, one of which examinations was the most thorough that could reasonably be provided in the community, and that before induction into military service they will again be exhaustively examined at a mobilization camp.

Section 127. Procedure of Local Board on return of physical examination record from District Board.

If the action of the District Board on appeal as to physical qualification changes or affects the classification of the registrant, the Local Board shall make the necessary changes in the Classification List. Whether the action of the District Board changes or affects the Classification by the Local Board or not, the Local Board shall mail to the registrant a notice (Form 1011) of the result of the decision by the District Board, and shall enter the date of mailing of such notice in column 23 of the Classification List.

Section 128. Physical examination of persons not in Class I.

Local Boards may, upon the application of registrants in Classes II, III, or IV, examine such registrants physically, pass upon their physical qualifications and, if they

are found to be permanently disqualified, to classify them in Class V. This is not a right of the registrant, but it is a privilege that may be accorded by the Local Board where the according of the privilege will not interfere with the prompt and orderly execution of the Selective Service Law.

Section 137. Delinquents reporting to Adjutant General of the State within five days after induction into military service.

If the delinquent reports to the Adjutant General of the State within five days after the date set for induction into military service, such Adjutant General shall order him to report to the nearest Medical Advisory Board or to any examining physician of a Local Board for physical examination, and shall defer reporting him to The Adjutant General of the Army until the result of such examination is known. The Medical Advisory Board or such examining physician shall forthwith examine him and report the result (Form 1010) to the Adjutant General of the State. If the delinquent is found qualified for military service, he shall be ordered by the Adjutant General (Form 1019) to report forthwith to his Local Board for military duty and immediate transportation to a mobilization camp. Where it is impracticable to order the delinquent to report to his own Local Board, he may be ordered to report to another Local Board, whereupon the Adjutant General shall notify the delinquent's Local Board of the order and the case shall thereafter be treated as prescribed in section 148.

No report is necessary to The Adjutant General of the Army in this case, but the Adjutant General of the State shall make a full report of all circumstances of the case in a letter addressed to the Commanding Officer of the mobilization camp, but sent to the delinquent's Local Board, together with the order of induction into military service (Form 1014), the order to report to such Local Board for military duty, and three copies of the report of the Medical Advisory Board or examining physician (Form 1010). The Local Board shall forthwith send the man to the mobilization camp in the usual manner, inclosing with Form 1029 the special report of the Adjutant General of the State, the order of induction into military service (Form 1014), the order to report to the Local Board for military duty (Form 1019), the report of the Medical Advisory Board in duplicate, and a copy of the delinquent's registration card in duplicate.

If the delinquent is found to be disqualified for military service, the Adjutant General of the State shall report the case to the Commanding Officer of the mobilization camp direct, by letter, inclosing copies of the order of induction into military service (Form 1014) and the report of the Medical Advisory Board or examining physician. Such Commanding Officer shall, in his discretion, forthwith order the delinquent discharged from military service or shall order him before a court-martial, as the interests of the service may require.

Section 141. Transfer of physical examination.

A registrant who is so far distant from his home when called to report to his Local Board for physical examination or when his physical examination is imminent as to make it a hardship for him to report may, at his own expense, request of his Local Board, by mail or telegram, permission to be examined by the Local Board to which he is nearest (naming it). Upon receipt of such a request the Local Board of origin shall mail to the registrant an order to report to such Local Board of transfer for physical examination (using Form 1022 but making the necessary correction thereon) and to the Local Board of transfer a request that he be so examined (using Form 1022A). Thereupon the Local Board of transfer shall physically examine the registrant, and thereafter the procedure in regard to the registrant whose physical examination has so been transferred shall be the same as if he were originally a registrant of the Local Board of transfer. After all such procedure is completed the Local Board of transfer shall return to the Local Board of origin all three copies of Form 1010, with a report of its finding and the report, if any, of the Medical Advisory Board, and the report, if any, of the finding of the District Board of the jurisdiction of transfer.

Section 197. Allowance of clerical assistance to be regarded as a maximum.

The allowances of clerical assistance and compensation thereof as prescribed in section 43 should be regarded as maximum limits, and every effort should be made by all concerned in the execution of the Selective Service Law to keep the expenses of the Government in the emergency down to the absolute minimum consistent with efficient service. Uncompensated and volunteer service should be

encouraged and accepted. The great task of segregating and classifying registrants may be made very much easier for members of Local and District Boards if clerical assistance is utilized to the fullest extent in preparing and segregating Questionnaires for the consideration of the Board. Much of this preliminary work can be done by volunteer clerical assistance in the evening and every encouragement should be extended to patriotic citizens, women as well as men, to assist in this work.

Section 198. Authority for civilian clerical assistants.

The form of authorization required to be made by the Governor of the State before a claim for salary of a civilian clerk for a Local or District or Medical Advisory Board, or for State Headquarters, may be paid will be found in section 306 but no printed forms will be furnished. The Governor shall not authorize any allowances or compensation in excess of the allowances and compensation fixed in section 43, nor in excess of that authorized by the law of the State, or that usually paid for similar services in the State. The number of the authorization should be entered in the place provided on every voucher on which a salary is paid.

This authorization will be made in triplicate. One copy will be sent to the Board or office, one copy will be sent to the Disbursing Officer and Agent for the State, and the original will be sent to the Provost Marshal General. The original only is required to be signed.

Section 200. Travel.

The Provost Marshal General and, when authorized by the Provost Marshal General, the Governors of the several States may direct any person to travel when such travel is necessary in the execution of the Selective Service Law. District Boards by resolution of the Board may direct members and employees of the Board to travel when such travel is necessary in the execution of the Selective Service Law.

Travel must, when such means of transportation is available or less expensive, be performed by common carrier.

When travel is performed in compliance with orders issued as authorized in this section, cost of transportation and Pullman accommodations over the shortest usually traveled route will be allowed and payment may be made of a per diem of $4 in lieu of subsistence while

traveling, and while the person ordered to travel is required by duty to be absent on duty from the city in which such person resides.

When travel includes fractional parts of a day, the allowance for such fractional parts shall be $1 for each six hours or major fractional part thereof.

Section 201. Travel orders.

All orders for travel must state that the travel is necessary in the public service and in the execution of the Selective Service Law.

The proper forms for travel orders will be found in sections 307 and 308, but no printed forms will be furnished.

Section 203. Certain officers and agents for whom no compensation is provided.

The service of members of Medical Advisory Boards, prescribed in section 29, of members of Legal Advisory Boards, prescribed in section 30, and of the Government Appeal Agents, prescribed in section 47, shall be uncompensated.

Section 204. Clerical assistance.

Clerical assistance for the division of the Office of the Adjutant General or other administrative department at State Headquarters and of District, Medical Advisory, and Local Boards shall be procured and compensated as prescribed in section 43 of these regulations.

Section 208. General Expenses.

The Provost Marshal General may authorize such lawful expenditures as he may deem necessary in the execution of the Selective Service Law.

Section 215. Traveling expenses.

Payment for traveling expenses will be made on War Department Form No. 350A, on which all blank spaces below the words "The United States, To" will be filled in down to the check notation. Each voucher shall be accompanied by a copy of the order of the Provost Marshal General or Governor, or of the resolution of the District Board directing the travel, which resolution shall contain a statement **that the travel directed is necessary in the public service and in the execution of**

the Selective Service Law; and a statement showing the following data:

Means of transportation.
Time of departure from permanent station.
Time of arrival at temporary station.
Time of departure from temporary station.
Time of arrival at permanent station.

If transportation other than common carrier as used, a certificate should be attached showing the fact that common carrier was not available or was more expensive, the distance traveled, and the fact that the amount claimed is that usually charged for similar services in the same locality.

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